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ABSTRACT

The proceedings of the seventh annual meeting of the College Reading Association consisted of the following papers: (1) "President's Report" (Martha J. Maxwell); (2) "The Library Is Your Reading Test" (Nancy Larrick); (3) "The Lehigh--Bethlehem ITA Study Interim Report Four" (Albert J. Mazurkiewicz); (4) "The First R: Implications for Teacher Education" (Mary C. Austin); (5) "The Gift of Sylvia Ashton Warner" (Jeannette Veatch); (6) "Evaluation of Reading Tests" (Albert J. Harris); (7) "Developing Reading Skills in English and Social Studies" (Robert Karlin); (8) "Criteria for Selection of Work Books for College Reading" (Shirley U. Wedeen); (9) "An Experiment Combining Cloze Procedure with Speed of Comprehension Instruction" (Rita Sawyer and Leonard S. Braam); (10) "Some Factors Essential in the Development and Evaluation of a College Reading Program" (Uberto Price); (11) "Inconsistencies in Teacher Preparation" (Ted Lane); (12) "Linguistics and Reading" (Robert J. Allen); (13) "Improving Critical Reading" (William Eller); (14) "Developing the Reading Skills of Mathematics and Science" (David L. Shepherd); (15) "The Use of Personality Tests in the Reading Program" (Leonard J. Buchner); (16) "The Dynamic Field of Vision as Applied to Learning" (Harold Wiener); (17) "New Directions for College Reading Centers" (George Murphy); (18) "Motivation: Key Steps in Developing Lifetime Readers" (Paul Berg); and (19) "Progress Report: The Chandler Language-Experience Readers" (Lawrence Carrillo). (MS)

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COLLEGE READING ASSOCIATION

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Edited

by

CLAY A. KETCHAM

Director of Reading and Testing

Lafayette College

Volume V **Fall, 1964**

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COLLEGE READING ASSOCIATION

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PREFACE

The College Reading Association held its seventh annual meeting at Villanova University, Villanova, Pa., on March 20-21, 1964. At a business meeting, the following were announced to serve as officers for the coming year.

M. Jerry Weiss	President
Robert C. Auckerman	President-elect
Gertrude Williams	Director
Paul Leedy	Director

Eighth Annual Meeting

College Reading Association

April 9-10, 1965

Rochester Institute of Technology

PRESIDENT'S REPORT

Martha J. Maxwell
University of Maryland

This has been a most productive year for the College Reading Association. We have acquired corporate status as a non-profit professional organization and our membership has grown. New commissions have been established and our members have been willing to give both time and effort to further the goals of the Association. In addition to commissions on reading research and the use of paperbacks, we have established new groups concerned with membership and professional standards and ethics. Our publications, **The Journal of the Reading Specialist** and **Conference Proceedings** have increased in size and improved in quality. The papers and discussions you will hear presented at this conference represent the culmination of a year of Herculean effort by Jerry Weiss, our Program Chairman, and many others. He has succeeded in arranging a program which promises to be both inspiring and enlightening.

In the reading field in general, this year has been marked by a less emotional, more constructive approach to the very real problems faced in improving reading instruction at all levels. Gone are the post-sputnik diatribes against our educational system. Attacks against our reading method generated by panic have diminished, more mature viewpoints are being expressed to correct the obvious problems and improve our instruction.

The publicity-generated hue and cry over super-speed reading programs has subsided somewhat. On the one hand, research efforts are being made in some colleges to evaluate their techniques and claims. A recent paper by Thalberg and Eller (1963) is representative of such studies. They compared college students taught new speed techniques with those taught under a traditional developmental reading approach and concluded that the new approach produced higher speed gains, but lower and more variable comprehension scores. These findings are typical of others being reported in the literature. Other college reading specialists have dug into their old records and found cases where students have made phenomenal speed gains in their regular courses.

On the other hand, there are indications that some of the super-speed commercial operations are maturing. Some of these groups have reverted to using standardized reading tests to screen applicants for their programs and discourage students with low skills or emotional difficulties from undertaking their training. Also there are some indications that they are using procedures that strongly resemble old stand-bys such as Robinson's SQ3R method.

If we were to evaluate the impact of the controversy generated by the speed programs, we might conclude that they have contributed to our

knowledge and caused us to re-examine some of our own assumptions and prejudices. The realization that it is possible for some students to read faster than 800 words per minute and still maintain good comprehension on our tests was difficult for many of us to accept. I hope that in the future we will avoid setting artificial limits on both the reading and learning abilities of our students. What appears to be happening is that college programs are adapting those ideas and techniques from the speed programs which are useful, and rejecting those that appear less valuable.

From our vantage point on the college campus, we watch with interest the new developments in teaching beginning reading such as Albert Mazurkiewicz's experiment with the Initial Teaching Alphabet. New breakthroughs in this vital area hold promise for all of us. If more children can learn to read more easily at an earlier age, and, more important, if more children learn to enjoy reading, this will have a profound impact on the college programs of the future.

In the field of college reading itself, there are promising indications that reading specialists are assuming a broader role in their academic communities. The apparently unending increase in the number of students seeking college education is having its effect. No longer can we remain isolated in our laboratories but must develop new ways of working with larger numbers of students with different needs. Many colleges are experimenting with training undergraduates as reading and study counselors. Pauk (1962) described the Cornell undergraduate training program at a previous CRA conference and other attempts have been reported by Bott (1963) and Canfield (1963). A recent article in the **Journal of the Reading Specialist** by Goodman (1964) discusses a program in which the Reading Laboratory coordinates a student tutoring service. These developments point to the fact that the reading specialist is assuming roles that are no longer limited to just reading skills and implies that he is concerned with assuming greater responsibility in implementing the academic objectives of his institution, enhancing the climate for learning, and considering broader problems of diagnosis and correction of specific learning difficulties and of student motivation. Another current concern is establishing closer liaison between the reading program and the college faculty. This afternoon, Dr. Uberto Price will describe how the reading program and faculty have been integrated in one college program.

The development of new and better self-instructional aids has encouraged more emphasis on individualized college reading programs. Required courses in reading and study skills for freshmen are fast disappearing in our large universities. In their place are voluntary programs where students from all levels of ability and classes, from freshman to faculty, may come. In the junior colleges, however, the reverse is true. There is a trend for more of these schools to require that their students take reading and study skills courses.

What does the future hold for college reading? Many of the old shibboleths held so strongly by reading people are being critically examined. For example, the concept of flexibility in rate and approach is viewed as a necessary concomitant to effective reading skills. The evidence points strongly to the fact that few people adapt their rate or style of reading to the material, even though they have had a reading improvement course. This suggests that either flexibility is a meaningless construct or we have not been very effective in teaching our students to read flexibly.

The current development of honors programs in many of our large universities presents another challenge to college reading specialists. What do we offer the superior student? Berg (1963) in a recent paper proposed that the objectives of reading instruction should include encouraging creative thought rather than stressing mere memory and critical reading skills. The idea of reading as a creative act will be emphasized in the near future and deserve our attention. Another interesting aspect of the investigation of creative students is seen in the work of Philip Ray (1962) who found that the highly creative freshmen coed had more efficient study habits and attitudes as revealed by Brown-Holtzman scores than coeds who scored high on intelligence tests but low on creativity indices. This suggests that the creative college student may use ingenuity in her approach to the reading and study demands of college courses.

Many of our favorite techniques mitigate against creative thinking. The SQ3R method, for example, provides a technique for studying textbooks based on sound psychological principles and experimentation. However, it has a major weakness. Of the thousands of students who have been taught this method, only a small minority have been found to use it outside of the reading course. Students say it takes too much time, but too often it is presented and perceived as a rigid formula. How much better it would be to present basic learning principles and encourage students to develop their own techniques of applying them to their own needs.

College Reading then faces new challenges in the year ahead. Perhaps more of our favorite methods and assumptions will fall by the wayside; however, new philosophies will emerge and the role of the college reading specialist of the future may be unrecognizable by today's standards.

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THE LIBRARY IS YOUR READING TEST

Nancy Larrick

If an award were made for the headline of the year in Education, it would surely go to that oft-quoted headline from Melbourne, Florida, where the high school boldly displays the sign:

"The school with a library larger than the gymnasium."

One magazine after another has repeated this believe-it-or-not statement—**The New Yorker, The Saturday Review, Publishers' Weekly, Library Journal,** to name a few. Why is this so remarkable, so often quoted?

A visit to various schools will explain. I recall a lush new high school library. And the sparkling new building in a suburb of Detroit with a beautiful library, equipped with extensive metal shelving but no books—only printed imitation of books on a shelf "to make them look better."

In the United States as a whole, 68.8 per cent of our elementary schools have no central school library. That is, 9.8 million elementary pupils are without central library services. In the state of Arkansas, 95.1 per cent of the elementary schools are without a central school library. There are a quarter of a million elementary school children in Arkansas, but only three elementary school librarians for the lot.

I am sure that the staff of that Long Island high school is concerned with their students' reading. They have a reading consultant to help with remedial problems. Probably every elementary principal in the state of Arkansas would give verbal recognition to reading as the keystone of the elementary curriculum. I am sure that the parents of those children want them to read above all else.

Yet by their action, school authorities and the community have restricted children's reading to textbooks and supplementary readers, for the most part. They have limited reading to the tool by which children find the answers to prescribed questions and prepare for an approaching test. Reading in this sense may never rise beyond the level of a chore, something to work one's way through and wash one's hands of. This is not reading to last a lifetime. Yet in this age of automation and accompanying leisure, of vastly accelerated information increase, the individual who does not continue to read will be ill-qualified to meet increasingly stringent job requirements and burgeoning free-time opportunities.

The Real Meaning of Reading

The present situation, I think, has grown out of a basic misconception of the true significance of reading in the intellectual development and fulfillment of the individual. Essentially, education must be personal if it is to nourish the child or adult as an individual. Think of your own education and consider those influences which have affected your growth as one who thinks actively and creatively.

I can think of several such influences in my own life. First, I would put those first-hand experiences which have been vivid and dramatic to

me personally—as when two Canada geese came to our pond last week—great majestic creatures standing four feet tall with a wingspread close to five feet. For five days they took over, honking at a collie on the bank but quietly following us when we put out more corn for them. No education could be more penetrating than an experience like this.

Then there are the people who speak in wave lengths that reach me deep inside. Here I would include my high school English teacher whose choice of poetry to read aloud is even now reflected in my own choices, his way of reading comes out in the way I read and the importance I attach to reading aloud to children and adults.

In much the same vivid way, the printed page can bring me ideas that penetrate to this same privacy which is uniquely mine. For example, as I read Sylvia Ashton-Warner's **Teacher** last fall, I felt I was listening to someone in the same room. I was sharing her experience, weeping over her failures and rejoicing over her achievements.

Reading at its best is just this personal, this private, this provocative. It is giving oneself up to a book. It is being in the setting of the story personally whether it is a Maori school in New Zealand with Sylvia Ashton-Warner or struggling across the Canadian wilds with two dogs and a Siamese cat in **The Incredible Journey** by Sheila Burnford. It is laughing and crying with the hero or heroine as children and their parents laugh and cry over the triumphs and later the death of that unforgettable spider in **Charlotte's Web** by E. B. White.

This is the kind of reading I will always remember, the kind that keeps me reading and thinking and questioning. It is the only kind worth our serious consideration, it seems to me. Reading which consists only of getting sound from symbols is a necessary tool, but it is only the beginning. True reading lasts a lifetime, enabling the reader—child or adult—to have private communication with one writer after another and thus to shape his own intellectual being and forge his philosophy of living.

But this kind of reading doesn't flourish in a swimming pool. It can't put its roots down in metal shelving which holds only fake books. It is unlikely to germinate in the dismal three-group lock-step which keeps children reading on the same page, answering the questions prepared in a far-distant publishing house.

Real reading can flourish, I believe, only where there are many good books to choose from, where there are sympathetic adults to guide and stimulate young readers, and where there is a climate for the personal probing of ideas.

A Dynamic Library Program

I know of nothing which has a greater potential for the development of on-going pleasure and growth through reading than a dynamic library program at every level—elementary school, high school, college and university.

The **Standards** prepared by the American Association of School Librarians spell out the marks of a good library program. For example: In

a school of 200 to 1,000 pupils, there should be from 6,000 to 10,000 books (not including reference books, textbooks or supplementary readers). In a school of 1,000 pupils or over, there should be at least 10 books per student. Once this basic collection is set up, there should be an annual appropriation of $4 to $6 per pupil for trade books in addition to money for encyclopedias, dictionaries, magazines, and pamphlets. There should be a trained librarian for each 300 students, plus a clerk for each 600 students.

But this is only the beginning. The effective school library needs teachers and school administrators who know what the library has to offer, who use it constantly and sell it to their pupils.

It is alarming when we recognize that we don't have enough libraries and that those we have are often poorly equipped. Equally distressing is the fact that many libraries are not achieving their full potential in developing lifetime reading.

Why is this? If you visit the same library two days a week over a period of several months as I have, I think you will find some of the answers. For example: Children come to the library for a 40-minute period, but their classroom teacher stays behind to grade papers. So she misses the librarian's book talk and the chance to see the kinds of books her pupils choose on their own. Or take the case of the school librarian and her clerk who make all the book selections because it is simpler than asking a teacher committee to advise. In this situation the teachers are deprived of the opportunity to know more about the new children's books and to see their possible relation to other teaching materials and individual goals.

Again and again I see evidence that teachers don't visit the library, don't suggest library books to their pupils, don't read aloud to their children, don't raise questions that will promote discussion and encourage reading beyond the textbook.

Frequently I find teachers who hold back library books as a reward for those who have read well or those who have finished an assignment ahead of the rest. Thus the children who read slowly or who show little interest are often deprived of the very books which might stir their interest and encourage them to develop better skills. It is like saying we will hold back the vitamins from the sick and undernourished and hand them out only to those who are in the best of health.

Deterrents to a Good Library

If we look at the experiences our teachers have, we should not be surprised that many of them think of reading only in terms of preparation for a reading test by way of the prescribed steps in the teacher's manual.

What happens in our teacher-education courses, specifically the teaching of reading?

Often we teach Reading in the school of education but find Children's Literature in a different department and children's books in a faraway building. Methods courses are divorced from materials in many

situations, except where textbook demonstrators come in to explain how to use their wares.

Children's literature courses are often given in institutions where there are no children's books. Students are asked to read about the books rather than read the books themselves. Or the course is geared to the history of children's literature, with little guidance for weaving such reading matter into the daily activities of the classroom. It becomes an ivory tower course unrelated to children's needs or interests.

Perhaps that is why we find so little classroom time given to reading that will give pleasure for a lifetime. Or we find such discredited methods as the formula-written book report (designed to prove the pupil's veracity and certain to discourage satisfaction in reading).

Take a look at our college libraries, and you will see why teachers and school administrators come out of college and graduate school unaware of what a library can do for their pupils.

Of the two-year colleges, less than 15 per cent meet the American Library Association's **minimum** standard of 20,000 volumes.

Of the four-year colleges, fewer than 50 per cent meet the ALA's **minimum** standard of 50,000 volumes.

At one university where I taught one summer session, the annual budget for professional books has been $1,000 for the past ten years, and until last year the full allotment had never been spent. Less than 40 per cent of our colleges allow 5 per cent of their instructional budget to library materials as recommended by the American Library Association. Imagine how much worse the situation will be by 1970 when we are told college and university enrollment will increase by 59.1 per cent!

The children's book collection in most of our education libraries is sad indeed. Teachers College, Columbia University, is the only college I know which has a model school library for its teachers-in-training.

The others seem to be made up of faculty discards and publishers' contributions—usually those of the smaller publishers seeking publicity, but often without the best books on their list as yet.

This is the way we train our teachers.

Is it any wonder, then, that they send forth millions of young people who can read but don't? And that 55 per cent of our citizens say they get their news from television instead of printed information sources, thus restricting themselves to capsule information censored for mass entertainment?

Conclusion

This is the age of testing. We have reading tests, aptitude tests, achievement tests, and dozens more. But I believe the most telling test of your reading program is your library. It testifies to your approach to reading, your conception of what reading can mean, your effectiveness as a teacher of reading or a teacher of teachers.

This is what I mean when I say, "The library is your reading test."

THE LEHIGH — BETHLEHEM ITA STUDY
INTERIM REPORT FOUR

Albert J. Mazurkiewicz
Lehigh University

Using Pitman's notational system of 44 symbols for the 40 sounds of English for initial teaching in reading instruction, the following chronology of events marks the progress, and reports observations on the first six months of activity with the first grade population of the Bethlehem schools. The statistical description of the experimental and control populations noted below indicates that though small differences in the I.Q. means exist, the populations are equivalent and that differences in results obtained in testing reading achievement may be accepted as a reflection of the different print medium used in teaching the populations. Both populations are using a language-arts approach to reading instruction in which writing is used as an aid to reading development, experience story use is emphasized, wide supplemental reading is encouraged, and variety in the basic material for instruction is promoted.

Table I
Populations by Alphabet

	I. T. A. N - 454		T. O. N - 874		
Variable	M	SD	M	SD	t Test
C.A.	74.87	5.22	74.37	5.11	.116
I.Q. Language	98.09	17.13	100.28	15.64	.375
I.Q. Non-Language	99.36	16.92	101.93	15.93	.435
Total I.Q.	99.00	15.26	101.34	13.67	.398

The lower scores noted in the I.T.A. population, while non-significant, are a reflection of what might be described as a non-random assignment of children to classes based on readiness test findings administered last spring. It was noted that one class included almost all of an intake of culturally deprived and Puerto-Rican children of one school. A suggestion that the principal had "loaded the dice" in making up his first grade classes was apparent. None-the-less, the differences between the total populations are slight and represent a stratified sampling, on geographical — social — cultural bases, of the population.

Following two and one-half days of workshop training, fifteen first grade classes got underway in September, 1963. Workshop training included two elements of prime importance: how to write the alphabet and how to spell using the Initial Teaching Alphabet. The teachers readily learned the twenty additional symbols but admitted difficulty in learning to transcribe sounds into print. The problem was not a handicapping one, but rather was a reflection of the fact that few of us attend to sounds in

normal conversation and that words in isolation take on sound characteristics which are incorrect when compared with the sounds uttered in normal conversation.

The methodology used emphasized the deciphering of the printed code by teaching children to associate each of the 44 symbols of ITA with the spoken sound it represents. Simultaneously, reading activities that develop thinking skills were stressed to insure that children approach reading from the outset as a meaning-getting process.

Teaching was paced to the individual's rate of learning. A structure of whole group teaching from the outset was soon modified by these rates of learning. Small groups and individual instruction became the rule.

Initially, teachers were very anxious about using the Initial Teaching Alphabet in writing activities, showing concern about correct spelling. After about three weeks, this anxiety disappeared and new anxiety showed up typified in the question we all hear around the schools: "How far have the other teachers gotten?" After about six weeks, concern was shown that children were not reading "books" – that is, children were reading materials of various kinds (experience stories, sentences, words and phrases, and simple story content of pre-primer supplementary reader type) but statements such as "last year they'd be in a preprimer by now" and "we aren't reading Book Two yet" indicated this form of anxiety.

At the ten week mark, about 10% of the population had completed **Book Two.** Observations and teacher reports indicated that these children could read and deal effectively with a vocabulary of 320 words. This compared with about the same percentage of last year's population which used the traditional alphabet and achieved third preprimer status in a basal program in the equivalent time. Under the TO procedure children could read 66 words on a purely sight bases.

At the beginning of the fifth month of instruction, significant differences in the reading and writing abilities of the ITA population from the control population were observable. A range of achievement existed from the ability to write connected discourse of several paragraphs of seven to nine word sentences down to the ability to write words which could be constructed from whatever number of sounds has been mastered by a given child.

Other observations were noted:

1. The reading program can be organized to follow the rates of learning of children. The skills portion of the program to a large extent is found to be embodied in the initial task the child has – learning to make, fix, and use associations between the sounds of his spoken language and the ITA symbols used to represent these in print.
2. This word recognition program, in contrast to the three year period under traditional procedures, appears to become a program of 3 to 4 months for the bright child and about 5 to 6 months for the average child.

3. Interpreting the results of the Botel Word Recognition Test given to a small sample of the population in the fifth month of school (transliterated for use with the ITA trained population), it appears that complete mastery of the 44 symbol sounds by the first grade child produces word recognition ability equivalent to a 3^2 level in this test.
4. When children have had exposure to all 44 symbol-sounds but have had directed instruction on only 37, achievement on the transliterated Botel Word Recognition Test seems to be typically found at a 3^1 level.
5. The number of words used in the first grade programs can be any reasonable number since conventional limitations do not apply.
6. Sentence structure and language used can approximate the patterns found in children's speech.
7. A complete freedom to utilize the best teaching procedures exists. Experience approach, combined with group activity, combined with individualized instruction, may all be used.
8. No change in normal teaching procedure is required.
9. Teaching, as such, is apparently no more difficult than usual. Teachers can prepare follow-up, supplementary, materials as required by children's needs, rate of learning, the kind and degree of reinforcement demanded, or as suggested by the curriculum, the season, or the calendar.

In examining achievements of the control and experimental populations at the beginning of the sixth month of reading instruction, it was noted that no standardized test could serve adequately. It was further recognized that any transliterated informal test would be an adequate measure only if the instructional levels achieved by a child on such a test did in fact agree with the difficulty level of the material he could read instructionally though the print medium be different.

The Botel Word Recognition Inventory was chosen as the test which seemed suitable for this purpose and was transliterated for use with the ITA populations. As noted by Botel, an achievement of 70 to 80% word recognition at any level indicated the child's instructional level.

The results below were achieved by sub-samples which represent a middle to upper class social-cultural segment of the population. The subsamples were statistically equivalent in chronological age and I.Q. to the major populations.

Botel Inventory Instructional Level	ITA population N-78	Traditional Alphabet Population N-58
4	7 (9%)	0
3^3	21	0
3^1	17 (87.7%)	2 (3.8%)
2^3	9	1
2^1	8	3
1	9	10
P	4	20
PP and below	7 (9%)	21 (36.2%)

The picture of two sub-sample populations which are heterogeneous in intelligence (IQ 78 to 140) indicates first that it is entirely feasible to develop a high degree of reading skill (beginning third reader instructional level) by the end of the 5th month of first grade with a small segment of the population using the traditional alphabet and a language arts oriented basal program of instruction. However, the results indicate that some ITA taught children achieve at a higher point in the equivalent time (fourth reader instructional level) and that a significantly greater number of children achieve third reader (or above) instructional levels. Almost 58% (57.7%) of the ITA population achieved an instructional level of 3^1 or higher on the transliterated **Botel Word Recognition Inventory** as compared to 3.6% of the traditional alphabet population who achieved third reader instructional status on the identical but T.O. form of the inventory. The median reading achievement of the ITA population is at the 3^1 level whereas the median achievement of the control group is the primer level.

An examination of the lowest portion of this population, those achieving word recognition scores which classifies them as having an instructional level of Pre-Primer or below, indicates that only 9% of the experimental population is found at this level as compared with 36.2% of the control population.

At the middle of the seventh month, children in the top groups are using ITA materials which have readabilities extending from 3.2 to 4.1 and are dealing with such word recognition skills as contractions, possessives and comparatives. The degree of reading skill achieved thus far by this group, and the rate of progress noted indicates that formal transition activities in material with a mean readability of 3.4 will be begun in early April. Transition, however, was begun by a large segment of the population in the third and fourth month of instruction. Five to eight per cent of average classroom (middle class populations) are reading TO materials at the present time though instruction is still going on in ITA materials, indicating that transition has been evolving naturally. No confusion is evident at the present time in such children's movement from one medium to the other.

THE FIRST R: IMPLICATIONS FOR TEACHER EDUCATION

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Few people, if any, will disagree with John Fisher who said recently that "No book, no record player, no television screen can understand a child. Tubes and transistors are not satisfactory substitutes for a teacher." Ideally, the increasing use of mechanical aids and the appearance of new teaching devices may permit a redistribution of teachers and their time. As yet, however, we lack sufficient evidence to evaluate the effectiveness of these devices in the classroom. One thing, then, seems certain: every pupil should have the attention of a skilled and understanding teacher, for the heart of the educational process is found in the skill, dedication, and personality of the teacher.

Ability to read is basic to academic and personal success. But it is as complex to develop as it is basic. If, as John Steinbeck writes, "Learning to read is the most difficult and revolutionary thing that happens to the human brain," it becomes obvious that excellent teachers of reading are prerequisite to the improvement of reading instruction in the United States. How successful they are in their efforts depends in large measure upon the preparation they receive before entering the profession and the continuing guidance offered to them after they begin to teach. As educators, therefore, we are deeply concerned with the pre-service and in-service education of teachers of reading. The findings of the Harvard-Carnegie studies are significant in this respect.[1, 2]

Initial Preparation of Teachers

The first Harvard-Carnegie reading study (1959-60) examined in depth the preparation of elementary school teachers of reading. Of special interest are the findings related to undergraduate reading courses and the student teaching experiences of education majors.

With regard to the actual methods course, the report revealed that (1) 93 per cent of the colleges sampled require a course in basic reading instruction; (2) when reading is taught as part of a curriculum block or of language arts, as is the case in 50 per cent of the colleges, actual class hours devoted to reading average less than 10; (3) when instructional time is limited, the primary grade reading skills receive emphasis at the expense of higher grade level reading skills; (4) diagnosis and treatment of reading difficulties is given little, if any, attention at the undergraduate level; and (5) instructing prospective teachers in the handling of individual differences appears to be one of the most difficult aspects of the reading course.

On the basis of these findings, improvement of the collegiate training in reading is an essential ingredient in upgrading the quality of reading instruction in Johnny's classroom. Several of the twenty-two recommenda-

tions which follow the report in **The Torch Lighters** pertain to the special instruction given to prospective teachers of reading.

Looking at the collegiate instruction, the following are particularly pertinent: (1) that the class time devoted to reading instruction be equivalent to at least three semester hours' credit, whether the course is taught as a separate one or integrated with the language arts; (2) that the instruction offered to prospective teachers be strengthened by the inclusion of content and instructional approaches appropriate for the intermediate grades; (3) that college instructors continue to emphasize that no one method of teaching is equally effective for all pupils, and in particular that phonics should not be used to the exclusion of other word recognition techniques; (4) that ways to accommodate individual differences and to provide differentiated instruction for several reading groups be translated from theory into practice for teaching candidates; (5) that students be introduced to significant issues in the teaching of reading, such as those involved in beginning reading instruction, grouping practices, teaching machines, and pre-reading materials; and (6) that college instructors take greater responsibility for making certain that apprentice teachers have mastered the principles and application of phonic and structural analysis.

Furthermore, the implications of the report for junior and senior high school teachers are crystal clear: a course in basic reading instruction should be required of all prospective secondary school teachers. Every teacher, regardless of his special field, should be part of the all-school team which plans, implements, and evaluates a continuous program of reading instruction in all subject areas.

Looking now at the student teaching situation, we find that the whole program should be re-examined. Attention should be directed to the basic organization of the apprenticeship, and the selection of cooperating schools and cooperating teachers. A large percentage of colleges (81 per cent) allow students to wait until the final semester of their undergraduate preparation before entering this program. The disadvantage of such late participation in student teaching are well-known: (1) prospective teachers who show weaknesses during this period seldom take steps to overcome their deficiencies before graduation; (2) final semester student teaching often comes during the second half of the elementary school year, thus giving apprentices no experience in organizing a class for reading instruction or in observing other activities at the beginning of the academic year.

Another basic limitation of the apprenticeship program occurs in more than half of the colleges surveyed by the Harvard-Carnegie study, namely that persons other than the content and method course professors are assigned to supervise student teachers. As a result, the reading instructor cannot determine how effectively his students perform in the classroom as they attempt to apply the theories gained from their college course. Nor is he in any position to guide apprentices who experience confusion and conflict when differences arise between collegiate theories and the classroom practices advocated by his cooperating teacher.

Aside from the organizational problems of student teaching, the selection of skilled cooperating teachers is especially critical. Here we encounter the difficulty of establishing criteria for their selection, of rejecting the inadequately prepared ones who volunteer for this role, and of retaining the really superior teachers who choose to sever their relationships with the apprenticeship program. Passive screening practices and the factors associated with student teaching which make it time consuming and unrewarding for potential candidates account for the fact that many students are placed in rooms where the practices of cooperating teachers are a distinct contrast to the concepts developed in college courses.

Fortunately, a few colleges and some state legislatures have taken positive steps to reduce the problems involved in the selection of capable "master" teachers. In the future, colleges themselves should take greater responsibility in recruiting, educating, and certifying these key people in the student teaching program.

To realize the full value of the student teaching situation, colleges may also wish to consider the following recommendations: (1) that the reading staff be sufficiently expanded to allow each instructor time in which to observe and confer with student teachers and to consult with cooperating teachers and administrative personnel; (2) that students remain in local cooperating schools for full days during their apprenticeship so that they will gain a better understanding of the continuity of the reading program; and (3) that when a student is found to have specific weaknesses in the reading program, he return to the college for additional course work and that his apprenticeship be prolonged until competency is attained.

In-Service Education of Teachers of Reading

Essential in any school system, rural or urban, large or small, is an on-going program of in-service education. With the explosion of knowledge and the changes taking place in schools today, it is no longer possible to assume that pre-service preparation will equip a beginning teacher for a life-time. Indeed, in many instances, the preservice program will hardly sustain the neophyte through her first few weeks in the classroom. The second Harvard-Carnegie reading study (1961-62), therefore, explored, among other things, the activities sponsored by school personnel to improve the performance of teachers.

On the basis of questionnaire returns, two-thirds of the 940 responding elementary school systems indicated that some type of in-service activity in reading was being undertaken, with the workshop mentioned most frequently. This is an encouraging trend, when we consider that attempts to conduct in-service programs in the past were meager at best, and that many of those tried were not proved to be beneficial.

Today, as then, however, judging from comments made by administrators and teachers during the field study in 65 school systems, in-service programs are far less successful than anticipated. Reasons for dissatisfaction

are numerous. Frank criticisms by teachers include the facts that meetings are scheduled after school and on Saturdays, that the content is unrelated to the needs of the participants, and that the leadership is neither helpful nor inspiring. From these meetings teachers like to feel that they learn new ways of teaching, discover new sources of materials, and receive much needed inspiration. Admittedly, designing a program which meets the needs of new teachers as well as the experienced staff member who may be in an "education rut" is a Herculean task, but if schools can do this, the rewards will be great.

Vast improvements in the conduct and content of in-service activities in reading are called for. Schools should seriously consider the following recommendations: (1) that in-service programs be designed to increase the knowledge and to improve the performance of teachers within the school, and toward this end that in-service programs be continuous, year-to-year efforts; (2) that released time be provided for teachers to attend meetings; (3) that participants play a more active role in the determination and planning of the program content; (4) that the size of the groups be limited to permit active participation of those in attendance; and (5) that use be made of TV, audio-visual aids, and case studies for the purpose of developing theoretical concepts in realistic situations.

The success or failure of an in-service program, of course, depends a great deal on the philosophy and attitude of administrators toward cooperative effort. Believing as we do that in-service education is the "lifeblood" of improved reading instruction, we believe also that it is the most important responsibility any administrator has today.

Conclusion

These, then, are some of the findings and implications of the Harvard-Carnegie reading studies. Much has been done to improve the teaching of reading during the past decade, but much remains to be done. Hopefully, our deep concern with pre-service and in-service programs will lead to concerted action on the part of colleges, state departments, and schools.

FOOTNOTES

1. Mary C. Austin and others, The Torch Lighters, (Cambridge, 1961).
2. Mary C. Austin and Coleman Morrison, The First R: Harvard Report on Elementary School Reading, (New York, 1963).

THE GIFT OF SYLVIA ASHTON WARNER

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The gift of Sylvia Ashton Warner lies in two major areas: 1) beginning reading and reading readiness, and 2) the love of teaching. If you are one whose love of teaching has been dissipated by either the stupidities of textbook publishers, who, quite correctly, insist they must respond to the "market", or by those administrators subject to all kinds of pressures, internal and external, or by the ever-present doldrums of American education at all levels, if you are any of these, SPINSTER and TEACHER are for you. On the other hand, if you are one who is basically bored with teaching and want to stay that way, Sylvia Ashton Warner will only disturb you profoundly. She will probably make you leave teaching entirely and make your living in some other manner.

I can only hope that such a presentation as this will set some of your feet on new paths, away from the traditional patterns of reading instruction at the early levels, and lead you on to the peak of excitement of a new found land. If you have not already done so, examine Doris V. Gunderson's new U. S. Office Pamphlet RESEARCH IN READING READINESS as a companion piece to this paper. Space and time prevent adequate coverage of her report. But the very prosaic nature of that piece underlines the unexplored, though not necessarily new, vistas that Miss Warner so eloquently presents.

On the broad and philosophical level, share with me her intensity, her devotion, her dedication, not only to her beloved "infant room"—fifty strong of lusty five-year-old Maoros—but to children everywhere, particularly those who are denied entry into the middle class culture of a majority group because of skin color and/or differing cultural patterns of ghetto-type life.

Sylvia Ashton Warner puts a new dimension to the use of children's own language in their reading instruction. She shows children that their own inner language is the stuff by which they can learn to read and write. She explores with them their feelings, their emotions as: "When . . . they are at peace with me, I show them the word "frightened" and at once all together they burst out with what they are frightened of,"[1] and uses these profound reactions, without exploitation, without amateur psychiatry, to show them how to learn. She begins with what she calls the "one-look" words. These are words that we would call "sight vocabulary." But what a difference from the Dolch List! They are learned without teacher's reference to their shape or configuration. They are learned, in short, because they are so important to the child that he cannot help but learn them, all by himself. What heresy to American reading readiness programs! What heresy even to those relatively enlightened teachers who develop a DAILY

experience story. These are words of fire and power. Miss Warner calls them the "Key Vocabulary". I am profoundly grateful that this vocabulary differs from child to child.

Thus she develops a sight vocabulary that will lead her infants into the magic world of reading. They develop the kind of words that will take a child four minutes to learn, compared to the four months that might be spent on such "reader" words as "come" and "look" and "see". Is this way of working a gift? A gift, certainly of time, and of love of learning. It comes from the greatest gift of all, the child's own language.

Captions

She teaches reading by reading itself, and not by vocabulary drill and skill building. The thought of such nauseates, and yet we, in America, have hardly begun to help teachers do other than drill on vocabulary and "build skills" – whatever that activity might be.

Instead of abstract skills, she spends her time rooting for single words that represent whole concepts from the child's own life. She calls them "captions," presenting the practice initially – and unforgettably – in SPINSTER in story form.

Miss Warner organized her room to have each child come to her while the rest were busy. The day opened with an activity of finding a partner after they had found their words on the cards that had been spilled out on the floor. The children teach each other, take them back to their seats and write them in a notebook or seize their notebook and read it aloud to their partner or to anyone else who will listen. This is the way she describes it.[2]

"I call a child to me and ask her what she wants. She may ask for socks and I print it large on a card with her name written quickly in the corner for my own use. She watches me print the word and says it as I print. Then I give it back to her to take back and trace the characters with her fingers . . . . I call them one by one until each child has a new word. These self-chosen words mount up and kept in a box."

The Interdependence of Reading and Writing

Not many reading authorities in this country will accept the idea that word analysis cannot be a reading skill, but must, by its very nature, be a writing skill. To me, this is a statement of an easily observable fact. Word analysis is that action that breaks a word into two parts–letter by letter, or phoneme by phoneme. Therefore it would seem to me that the proper place in the curriculum to teach analysis is NOT in reading, but in writing (more specifically spelling) regardless of age level or ability. Copying words is possible very early without strain.

In the same vein, I would suggest that reading is a word synthesis or perception skill. Any act that breaks a word apart thus must be damaging to reading, to word perception. Even when we spell a word and look at it to see if it "looks right", we are performing an act of reading, not of writing. On the other hand, if we are reading along and are forced to

stop and figure out an unknown word we are performing an act of word analysis, or one of writing.

Without being this technical, Sylvia Ashton Warner incorporates reading and writing into an indissoluble whole. She even includes the use of the alphabetic principle – that names of letters are useful when it comes to the sounds of letters in words. One has to hunt for this reference, but it is there.[3] Even more, Miss Warner gives reading back to the Language Arts. I, for one, have never accepted this over-emphasis upon reading. I suspect that, in the long run, American children will have proved to have suffered from this excising of reading from the Language Arts in general. So I regard this book as a gift in that we see how she combines not only reading and writing, but speaking and listening. They are inextricably intermingled.

Reading instruction in TEACHER begins, as I have described, with one look words that get written down and learned in a variety of ways. As the infants write of the events in their lives and share the writing with each other (everyone knows of the happenings in the "Pa" – the Maori village anyway) their ability increases until they are able to move into the more formal, more socially acceptable, although far less interesting, material dealing with the European culture that eventually the Maoris must accept or suffer the consequences of segregation–New England style. The actual mechanics of teaching in this fashion depends on a kind of an editorial eye that Miss Warner exercised over her children as they were working with the words that they had already received on cards.

These are but a sampling of the gifts of Sylvia Ashton Warner. She has now retired in her beloved New Zealand. Now three years later there are at least three infant rooms that are running on her philosophy. Miriam Wilt is one who saw these. Lila Sheppard, in a recent **Elementary English** Magazine, tells of her experience with Miss Warner's ideas as a Fulbright scholar.

As for myself, I can hardly wait to go and see for myself. Until that time, I feel that a combination of her ideas, plus those of Van Allen which I have already mentioned, and the whole galaxy of practice under the inadequate title of "Individualized Reading" will provide more gifts than ever for American children's reading instruction. In the face of what they have been subjected to in the past century, they need such gifts.

In conclusion, however, let me comment more on this unique and provocative book. While most of what she says is not absolutely new, nor do I find all of it absolutely transferable onto the American scene, yet it cannot be denied that her central theory is sound, needing only definitive research to nail down the specifics. Who can deny that there is anything wrong in

1. Using children's own language or speech patterns to teach reading, writing and spelling?

2. Encapsulating a wide piece of life in one word caption?
3. Teaching single words without need for drill?
4. Showing children that their thoughts are essentially verbal, and thus can be the stuff of reading and writing?
5. Giving teachers a way to deal with the lustiest of emotions in a healthy fashion.

With all this we find that the presence of tears, laughter, fear, and love produces an irresistible body of material for children to cut their initial reading and writing teeth upon. In addition, bridging the gap between the most miserable or the most different of home life to school life is a problem facing many school teachers. It cannot be done by anything imposed. It must be done through the use of children's own lives, experiences, and feelings, to help them acquire the skills necessary to live in a modern society. The gift of Sylvia Warner is a means to accomplish these ends. Her gift is plural and an inspiration to us all.

Footnotes

1 Teacher, p. 38
2 p. 47
3 p. 223

EVALUATION OF READING TESTS

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Anyone who passes judgment on a reading test, or has the responsibility of comparing one reading test with another and making a choice, is well advised to begin by considering carefully the purposes for which the test is to be employed. The possible uses of any test have been in the minds of those who constructed it and in consequence it is likely to fit some purposes much better than others.

What are the main purposes for which reading tests are used? It is not difficult to distinguish a minimum of eight main purposes, which may be listed as follows:

1. comparison of one group of students with other groups, as in school surveys;
2. prediction of the probability of school success or failure for individual students;

3. classification of students into homogeneous groups (or rather, into groups of lessened heterogeneity) for instructional purposes;
4. selection of students for special reading courses or remedial programs;
5. measurement of specific sub-skills as a guide to group and individual instructional needs;
6. measurement of reading performance at intervals during an instructional program, or after a specific instructional program has been completed;
7. comparison of pretest scores with later scores as a measure of the outcomes of experimental variables in reading research studies;
8. provision of diagnostic information useful in the analysis of causation and symptoms in reading disabilities.

The reading specialist must know something about statistics, but in the evaluation of reading tests he needs to begin with what he knows as a reading specialist rather than as a statistician. In the light of his knowledge of the reading process, he is equipped to make an informed judgment about the particular phases of reading it is important to measure in the specific project. Is a single score sufficient, or are several sub-scores desirable? If sub-scores are wanted, which reading skills are most prominent in the instructional program and therefore of high priority when it comes to measurement? Do we need measures of sight vocabulary? word attack skills? word meanings? paragraph comprehension? specific comprehension skills? Will a mixture of types of content be satisfactory, or will separate parts of each using material from a particular content area be needed? Are measures of competence sufficient, or are measures of attitudinal and affective outcomes also needed – feelings about reading, interest in books, readiness to devote leisure time to reading?

Let us take a look at the eight purposes for using reading tests and see what specifications are likely to be most important for each.

For survey purposes, tests providing an overall reading score, or a small number of sub-test scores which can be averaged, are usually preferred. The most central issue is usually the adequacy of the norms – the kinds of derived scores provided (grade scores, age scores, percentiles, standard scores, etc.), and the adequacy of the sampling procedures used. Usually all the tests that are worthy of serious consideration have satisfactory reliabilities, and the data available about validity are usually irrelevant. In particular situations one or more of the following may be quite important: the range of possible scores, ease of administration, amenability to efficient scoring, and cost per pupil.

In many schools and colleges, an important use of reading tests is in the admissions procedure. When this is the primary purpose for using a reading test, the primary consideration in selecting the reading test is its effectiveness in predicting success or failure for individual students.

Many colleges use a reading test as part of a test battery, and combine the test scores with high school marks in a composite score which arranges candidates in rank order of desirability. Here statistical validity is the proper basis for choosing among available reading tests. The preceding class's average grades for the freshman year can be a reasonably satisfactory criterion with which each reading test can be correlated. The reading test's contribution as one of the factors in a multiple regression equation is probably a better indicator of its predictive validity than the first-order correlation between test score and grades.

For example, let us assume that two reading tests are being tried out to see which can make a better contribution as a selection instrument. Both have just about the same correlation with grades, about .45. However, Test A has a much lower correlation with scholastic aptitude score than Test B has and so it contributes something unique to the prediction, while Test B contributes practically nothing extra. Test A would obviously be more effective than Test B in this situation, and therefore the preferred choice.

Reliability is of relatively little significance in evaluating reading tests; statistical evidence of validity is helpful when we can find it; but usually we must fall back on our knowledge of the instructional outcomes we want to measure, and our judgments of the relevance of the test to these outcomes.

Let us return to the eight purposes for using reading tests that were listed earlier. Two of these, making school surveys and using the test in an admissions program, have been discussed.

The next two purposes, classification of students into instructional groups and selection of students for special reading programs, usually do not require a highly analytical test. Usually a well-regarded test of the survey type is acceptable. Often the reading test is used in conjunction with a test of scholastic aptitude or potentiality, with an effort being made to select students who are both weak in reading skills and capable intellectually of making considerable improvement. Difficulty is more likely to arise in the choice of a suitable scholastic aptitude test than in the selection of the reading test, since many so-called intelligence or scholastic aptitude tests assume the ability to read. Oral vocabulary tests, listening comprehension tests, and non-verbl group tests all have advantages and disadvantages, and a clear basis for making comparative evaluations has yet to be established.

In the measurement of specific sub-skills as a guide to instructional needs we have made little progress in the past twenty years. More attention has been paid to improving the convenience and ease of scoring of reading tests than to the differentiation of specific skills and provision of tests for specific skills. Indeed, some of the older tests like the **Sangren-Woody Reading Test** (1927), and the **Iowa Silent Reading Tests** (1927, revised last in 1943) were far more ambitious in trying to measure sub-

skills that have instructional significance than most of the tests that are popular today. One of the main reasons for their decline probably has been insistence on unreasonably high reliabilities for sub-tests. A resurgence of interest in tests containing instructionally significant sub-scores would be a desirable development. There are already some signs of movement in this direction. Three test booklets are now available for measuring highly specific aspects of word attack skills, in the middle and upper grades. The current version of the Stanford Reading Tests come closer to being analytical than any previous edition in that series. The Reading Versatility Tests devised by McDonald have shown how poor the outcomes have been in helping students to vary their rate of reading according to purpose and the nature of the material.

In the measurement of reading performance at intervals, and particularly in using reading tests as pretests and final tests in research, one of the characteristics of a good test should be comparability of measurements over a period of years. Here one can be easily fooled. For example, the writer helped to select a reading test for a longitudinal study lasting three years, relying on the fact that both the intermediate and the advanced levels of the test series translated raw scores into standard scores. Only when it was too late did we learn that the advanced standard scores were not directly comparable to the intermediate standard scores. Scoring scales that are directly comparable from one level of difficulty to another are highly desirable, but tests that claim to do this need careful inspection.

The eighth purpose, provision of diagnostic information useful in the analysis of causation and symptoms in reading disabilities, is one for which we have only partially satisfactory instruments. One's preferences will necessarily stress the factors one considers to have causal importance. Some of the newer instruments have exciting possibilities, particularly those attempting to make fine discriminations within the area of psycholinguistics. A careful qualitative analysis of errors in reading, with particular attention to the process the reader was trying to use, still seems to me more useful than detailed tallies of categories of errors.

In conclusion, eight major purposes for using reading tests have been listed, and the characteristics of reading tests of particular significance for each of these purposes have been discussed. The evaluator of reading tests has to rely mainly on his estimation of content validity, which is based in turn on his knowledge of the reading program and the specific purposes for which the test is to be used. There is plenty of room left for improvement in the measurement of the outcomes of reading instruction.

DEVELOPING READING SKILLS IN ENGLISH AND SOCIAL STUDIES

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The ideas expressed in this paper are conditioned upon three assumptions: 1. general reading ability is a necessary foundation for reading all kinds of materials; 2. the possession of general reading ability does not assure ability to read all kinds of materials; and 3. special reading abilities are associated with materials in subject areas.

General Reading Ability in Literature and Social Studies

The reading process has been described as a series of steps through which the reader moves. He recognizes what the words say and the meanings that are attached to them. He then synthesizes these individual meanings into units of thought in order to discover what ideas are being offered. This second step, called literal comprehension, leads to the third which involves the reader with deeper meanings. These deeper meanings are inferred from the information that is obtained through literal reading. Critical reaction and evaluation follows interpretative reading. Finally, the impact of these previous steps is felt through the influences which the ideas gained through reading have upon the reader's thoughts and acts.

Teachers of literature and social studies are teachers of basic reading in that the impact which these skills have upon understanding the content of their materials is not inconsiderable. We may add to these abilities flexibility in reading that encompasses varied rates of reading for different purposes and for different materials and recognition of authors' patterns of writing that are reflected in the use of word signals, paragraph structure and idea design.

Specific Reading Ability in Literature and Social Studies

Skillful reading of literature entails the pursuit of the theme, the following of events to their climax, and the anticipation of episodes. Events may be telescoped or interpolated. Details as well as major trends may be hidden in what is said or left unsaid. Clues to climaxes are scattered in no predictable way. Skill in extrapolation controls the degree to which the requirements of appreciation are fulfilled.

Another type of inferential reading contributes to appreciation. It is the interpretation of obvious and subtle clues that refer to the main and supporting characters in the selections. Through them the reader comes to know their creator. This discovery contributes to appreciation. Reaction and visualization are two additional ingredients of appreciation. Although they may be considered skills for whose development teachers should strive, perhaps they are really outcomes of learning to read literature. Another aspect of appreciation is skill in obtaining the message that the author conveys through his writing. This message can influence the future be-

havior of the reader in situations that are akin to those about which the author is writing.

In addition, the specific form literature takes makes additional demands of the reader. The short story is marked by conciseness so that the background for understanding the purposes of the writer, the events to be described, and the nature of the characters must be supplied by the reader from clues contained in opening paragraphs and details running throughout the story. The main tasks that face the reader of essays are discovering the author's purpose for presenting his views and what these views are. The recognition that satire, humor, wit, sarcasm, and irony are essential vehicles for essayists to express views and insights and the ability to recognize the role each serves will contribute to fuller understanding.

Skillful reading of novels makes demands that are not found in some of the other types of literature. The reader must be able to separate the underlying theme from subsidiary ones. He must deal with many details, filing away for future use those which may influence the turn of events and discarding others that are of small consequence. Skill in determining the significance of seemingly ordinary events and recognizing symbolism is a requisite to deeper meanings.

High-order reading abilities are needed to appreciate plays. The play is unlike other types of literature in that the reader has only brief notes and the dialogue from which to draw inferences about the background, setting, characters, events and author.

The reading of poetry is not easy. The inverted order and abbreviated forms of expression present special reading problems and may interfere with appreciation. Students must learn to deal with them if they are to fill in gaps that have been left by the poet. Students frequently have difficulty reading poetry in that they treat each line as a thought unit and tend to disregard the punctuation. They must be taught to regard the punctuation as a significant contributor to the meaning of poetry. Poems are intended for oral reading. The rhythm and mood of poems are felt through the language that has been chosen to convey them. Figurative language is used to suggest mood as well as ideas. The author of poetry can use rhythm and rhyme to influence the emotional responses of the reader. All of these are devices of which students need to be aware.

The specialized skills in reading social studies content are really not very different—except perhaps for material containing mathematical symbols—from those required to read other kinds of content. In order for students to acquire knowledge through their own efforts they must learn to provide the self-direction that is so necessary to the successful completion of independent activities. Skills which students use in such independent reading activities are known as the study skills.

The study skills consist of several different skills, some of which are related and dependent upon each other. They are:

1. selection and evaluation: important ideas and related details
2. organization: notes, outlines, summaries
3. location of information: table of contents, indexes, glossaries, etc.
4. following directions: one step, steps in sequence
5. specialized skills: pictorial aids

In addition, there is a special problem associated with the reading of social studies materials. Analyses of them show that they contain an inordinate number of difficult concepts which are offered at a brisk pace and without much explanation. Even where extensive discussion is common we must not overlook the fact that words which are used to explain other words frequently fail to accomplish their purposes. Failure to understand these ideas are a major contributor to lack of success in mastering social studies content.

May I offer some guidelines for teaching the study skills:

1. Materials for which students are held responsible should be used for teaching the study skills.
2. The content of the materials used for developing these abilities should present no real meaning difficulties other than those on which the student is working.
3. Only one study skill should be taught in a lesson.
4. Most study skills consist of a hierarchy of smaller skills and these should be taught in sequence.
5. Better results in learning the study skills can be expected if they are taught as the need arises.

It is very difficult if not impossible to cover comprehensively in the time alloted this matter of developing reading skills in literature and social studies. I hope that I have supplied some directions and possibly some challenges.

CRITERIA FOR SELECTION OF WORKBOOKS FOR COLLEGE READING

Shirley Ullman Wedeen
Brooklyn College

Attention became focused on college reading shortly after elementary and high school reading programs came under more careful scrutiny about 20 years ago. Some educators believed college "problem readers" were elementary and high school youngsters who were taught improperly, or not taught at all how to read. Others believed that poor reading was attributable to emotional problems, while still others believed that since more children than ever before were attending colleges, we had opened the doors to many poorer students and therefore were confronted with less capable students. Whatever the origins, we now had the problem of college stu-

dents who lacked the ability to cope with their college reading demands. Remedial measures followed a familiar pattern.

First, students were expected to "correct" reading deficiencies on their own. Since "reading" as such, was not a college taught subject, many institutions would not spend their time and personnel on correcting skills in which the students should have been proficient upon entry. This, in turn, led to the formation of private, off-campus, remedial reading clinics.

Then, some colleges organized small auxiliary remedial programs. This progressed to recognized programs in other colleges. Other schools incorporated the teaching of reading in their required English courses.

Today, we run the gamut from small to large private reading programs which meet individual, group, and industrial needs. College programs extend from voluntary, non - credit, fee programs through to required, class, credit courses in remedial and developmental reading.

With changing educational philosophies, teaching techniques, needs, numbers of people involved in the process, as well as materials, also changed.

Initially, the materials used were borrowed from junior and senior high schools. Some remedial reading books at those levels were available. We followed a logical sequence of reading training for sub-standard readers. Since we only worked with deficient readers on the college level, we backtracked several years in reading books, and came up with materials suitable for their level of ability. This, of course, met only part of the problem. Many students did not need or want "watered down" reading materials.

It was then that remedial reading books specifically designed for the college level first appeared. As the field expanded, so too, did the request for expanded and differentiated services. Some reading training centers found themselves with students whose interest level did not coincide with the high school books available. Other programs had started to use a variety of speed reading machines and required material to use in the machines. Others found themselves with students whose reading ability was good, but not up to the level of expectation based on their tested capabilities, and therefore, more difficult materials were required. As increasing demands were made, workbooks appeared which attempted to fulfill the growing needs.

This author believes there is no one best technique, best machine, best text or best workbook. What one ultimately decides upon as the best workbook or books will, of necessity, be dependent upon one's particular set of teaching circumstances.

The following is a review, categorization, and summarization of the 21 workbooks I consider most efficacious for college reading programs.

(See Chart Pages 28 – 29)

AN EXPERIMENT COMBINING CLOZE PROCEDURE WITH SPEED OF COMPREHENSION INSTRUCTION

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&
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The term "cloze procedure" was coined by Wilson Taylor to describe a word-deletion technique developed for measuring readability of printed material. During recent years this approach to building reading comprehension skills has received increasing amounts of attention. Bloomer [1] used this technique with college students in an experimental situation. Gains made by the experimental group using cloze techniques were significantly greater than gains made by the controls in comprehension. Rankin [2] suggested using the technique in a clinical situation to help youngsters develop the skill of using contextual clues.

The purpose of this investigation was to ascertain whether gains in reading comprehension which might result from practice with cloze type exercises would be cancelled or reduced if they were combined with instruction in speed of comprehension. Cloze exercises call for close attention to detail, a critical grasp of the main idea, and an ability to infer and interrelate ideas presented. Is this type of comprehension negated when combined with instruction designed to increase reading speed?

The cloze procedure [3] has its origin in Gestalt psychology. It stresses the perceptual and problem-solving aspects of thinking. People tend to modify the formal qualities of what they perceive. This occurs particularly if there is a gap in the meaning pattern. An attempt is not generally made to perceive every detail accurately. To do so would involve an extensive search which would be excessively time consuming. Instead only as much is perceived as will enable a finding of the meaning.

Richard Bloomer sought to use the idea of cloze and comprehension with a group of randomly selected college students volunteering for a non-credit course in remedial reading. The experimental group used cloze material. The first control group used other self-improvement materials. In each instance the student met certain objectives and proceeded through the course at his own rate, and was tested after completion of a certain quantity of material. The role of the instructor for each group was minimized. Since the voluntary control group "faded away" before completion of the course, results were compared with a random sample of college students in order to determine the effectivness of the experiment. Improvement was based on Cooperative Reading Test results and grade point prediction. The results showed significant gains for the experimental group in comprehension but not in vocabulary. The comparison of grade point

AUTHOR	BOOK	PUBLISHER	DATE	LEVEL			
				Low Freshmen	Freshmen	Average	Sen
Brown, James	Efficient Reading	D. C. Heath & Co.	1962		X	X	
Brown, James & Sanderlin, George	Effective Writing & Reading	D. C. Heath & Co.	1962		X	X	
Charington, Merle	Improving Reading Skills in College Subjects	Bureau of Publications Teachers College, Col. Univ.	1961		X		
Cooper, Russell & Griffin, Glenn	Toward Better Reading Skill	Appleton-Century Crofts Co., Inc.	1959		X	X	
Gilbert, Doris W	Power & Speed in Reading	Prentice Hall, Inc.	1956	X	X		
Geiler, Walter & Roeth, Claire	Developmental Reading	J. B. Lippincott & Co.	1958	X	X		
McCallister, James	Purposeful Reading in College	Appleton-Century Crofts Co., Inc.	1942			X	X
McDonald, Arthur & Zimny, George	The Art of Good Reading	Bobbs-Merrill Co., Inc.	1963		X	X	
Miller, Lyle	Maintaining Reading Efficiency	Holt-Dryden	1959	X	X		
Shaw, Philip & Townsend, Agatha	College Reading Manual	T. Y. Crowell Co.	1959		X	X	
Sherbourne, Julia	Toward Reading Comprehension	D. C. Heath & Co.	1958		X		
Spache, George & Berg, Paul	The Art of Efficient Reading	MacMillan Co.	1955		X	X	
Simpson, Elizabeth	Better Reading Book 1 2 3	Science Research Associates, Inc.	1962	 X X	 X X		
Strang, Ruth	Study Type of Reading Exercises	Bureau of Publications Teachers College, Col. Univ.	1956	X			
Strang, Ruth	Study Type of Reading Exercises-College Level	Bureau of Publications Teachers College, Col. Univ.	1951		X	X	
Stroud, James, Ammons, Robert & Bamman, Henry	Improving Reading	Appleton-Century Crofts Co., Inc.	1956			X	
Wedeen, Shirley Ullman	College Reader	G. P. Putnam's Sons	1958		X	X	
Wedeen, Shirley Ullman	Advanced College Reader	G. P. Putnam's Sons	1963			X	X
Wilking, Vincent & Webster, Robert	A College Developmental Manual	Houghton Mifflin Co.	1943		X	X	

EMPHASIS			CONTENT				USABILITY				
							Power for Mechanical Aids				
Speed	Comprehension	Specific Skills	General Interest	Literature	Reading Improvement Instruction	College Textbooks	Self	With Specialist	Large	Small	Performed
X	X		X		X		X	X	X		X
		X	X				X	X	X		X
		X				X		X		X	
X	X		X				X	X		X	X
		X	X					X	X		
		X	X					X	X		
X	X					X	X	X		X	X
X	X	X	X				X	X		X	
X	X		X				X	X	X		
X	X					X	X	X	X		X
		X	X		X			X	X		X
X	X	X	X			X	X	X	X		X
X X X	X X X		X X X				X X X	X X X	X X X		
X	X				X		X	X		X	
X	X				X		X	X		X	
X	X		X					X	X		
X	X					X	X	X		X	X
X	X					X	X	X		X	X
X	X	X	X	X	X	X	X	X	X		

predictions showed that the experimental group exceeded their mean predicted average while the control group did not achieve their mean prediction.

This related literature revealed the following points deemed significant in planning the Syracuse University study.

1. Cloze materials, relatively easy to construct, had been used successfully to develop comprehension skills.

2. Deletion of every nth word regardless of part of speech tends to measure the comprehension of relationships.

3. Affording the students opportunity to discuss word choice was an important aspect of the technique.

4. Cloze exercises had not been used in combination with instruction designed to increase reading speed.

Subjects for this study were Syracuse University students enrolled as freshmen during the 1962 fall semester. Two sample groups were composed of students enrolled in Improvement of Learning, a two-credit improvement of reading and study skills course meeting for a total of three class hours per week on alternate days for 15 weeks.

The experimental group (E) consisted of 51 freshmen enrolled in three different Improvement of Learning sections. One control group (C-1) consisted of 35 freshmen enrolled in three other Improvement of Learning sections. A second control group (C-2) consisted of 48 freshmen not enrolled in any Improvement of Learning class.

An ability comparison of the three groups (E, C-1, C-2) was made using the verbal scores of the ACE as a measure and a t-test. Results of this comparison, (Table I), show no statistical difference in verbal ability as measured by this test between the Experimental Group and Control C-1. Control C-2 was, however, statistically better than either of the other two groups. It might be anticipated, therefore, that this more able group would reflect greater gains due to normal college reading experiences.

TABLE I

COMPARISON OF ACE VERBAL SCORES

Group	N	$\bar{X}$	t-Test Results
Experimental (E)	51	440.08	1.52
Control (C-1)	35	425.16	4.06*
Control (C-2)	51	440.08	4.33*
	48	479.40	
	35	425.16	
	48	479.40	

* significant at the .01 level

Instruction for the Experimental group and Control C-1 emphasized the same speed of comprehension techniques. "Flexibility" was the key word. Flexibility was to be achieved by the reader by first determining his purpose for reading a given selection and choosing a reading technique which would most quickly yield satisfactory results. Further the reader was instructed to determine, by reading the first and last paragraphs of the selection, what his own familiarity or background for this particular selection was. At the same time the reader was to evaluate the material with

respect to its complexity and difficulty of writing style. The reader was to then project certain questions which might be answered by reading the selection.

The Power Builders of the SRA Prep Lab offered what was considered to be suitable reading material of a challenging and interesting nature. Student "self-pressure" was used in working toward faster reading. Each student timed his own reading, answered and checked his own answers to comprehension questions, and recorded two scores. One score was his gross reading rate (the speed at which the selection was read in words per minute). The second score was his effective rate (the gross rate in words per minute multiplied by the percent of correct answers to the comprehension questions). It was agreed beforehand that any comprehension score of less than 70% could hardly be indicative of efficient reading. On such occasions no effective rate was computed. Each student could "move up" to a harder reading level when he felt ready to do so.

Control Group C-1 used college type reading improvement material. Comprehension skills for this group were developed through stress on finding main ideas, recognizing the organization of material and selecting important details. The Experimental Group depended on cloze material for the development of comprehension skills.

Cloze exercises were teacher-made using graded material, starting with fourth grade and gradually increasing through senior high school level of reading difficulty. This provided nine "levels" of materials. Each selection of approximately 500 words was typed twice – first in unmutilated form, and second with every tenth word deleted after a random start. Each selection contained 50 cloze opportunities, the numbered blanks being of a uniform 6-space size. Five selections of each of the nine levels provided practice in social studies (two selections), science (two selections), and general interest (one selection).

When a student achieved a score of 94% on three selections at a given level, he moved on to the next higher level. After completing five selections, regardless of score, he moved to the next higher level. Thus the number of lessons required for a student to complete the nine levels ranged from a minimum of 27 to a maximum of 48 lessons. Answer keys to the comprehension checks for each selection were made available to permit student self-checking of responses.

The cloze part of the experiment consisted of supplying the student with appropriate material as indicated above. The student was instructed to quickly scan the unmutilated selection taking no longer than a minute to get the general idea of the material to which he was to react. This first reading served to orient the student and was also used by Bloomer in his experiment.

Having completed the survey of the selection, the student then turned to the mutilated copy and, using the context of the passage, sought to re-

tain the meaning and preserve the flow of language by supplying an appropriate word indicated by the numbered blank. Unlike McGinite's [4] experiment, this did not call for supplying the exact word, but of retaining the meaning regardless of the exact word used. Responses were recorded on a separate answer sheet. When the task was completed the student turned to the answer key and checked his responses against the exact words listed there. The next step was to reread the passage to determine if in those instances in which his responses were at variance with the key the meaning of the passage was retained. Responses which seemed to be meaningful substitutions were checked jointly by the student and the instructor.

This was considered to be one of the most valuable steps in the procedure. As the student verbalized his reasons for his response the instructor was able to determine and analyze thinking processes employed by the student in dealing with the situation. The instructor was thus in a position to offer suggestions for improvement.

It soon became apparent that many students, in their initial approach to these exercises, would read up to a blank, make a choice, and then skip immediately to just before the next blank without checking to determine if their choice of word was realistic or consistent with the entire context. There appeared to be an almost complete oblivion of the restraint or limits imposed by the word following the blank. Awareness of this tendency on the part of students would appear to be of particular importance in development of machine-teaching texts employing the cloze technique.

Control Group C-2 was given no special reading instruction. The purpose of this group was to determine if gains would be made which might be attributed merely to living, working and studying in a college atmosphere and program.

The Cooperative Reading Test was administered to the three groups of students involved in the study during the first week of the semester and again at the end of the semester. Table II shows the comparison of the vocabulary, speed of comprehension, and total scores of the pre–and post testing for the three groups.

TABLE II

MEANS AND t-TEST RESULTS FOR DIFFERENCES BETWEEN PRE AND POST TESTS FOR EXPERIMENTAL AND CONTROLS ON COOPERATIVE READING TEST, FORM 1A

		$\bar{X}$ Raw Score Gains				
Group	N	Vocab.	Speed of Comp.	Total	t-Test Results	
Experimental	31	3.5	8.5	12.1	Vocab.	.69
Control I	35	4.0	4.5	8.5	Sp. of Comp.	3.67*
					Total	3.33*
Experimental	51	3.5	8.6	12.1	Vocab.	1.32
Control II	48	2.4	5.5	7.9	Sp. of Comp.	3.90*
					Total	3.39*

* significant at the .01 level

Results of this test indicate that the experimental group achieved statistically higher gains in speed of comprehension than did Control Group C-1, a comparable group verbally, or than did Control Group C-2 which according to ACE scores was a more skilled group verbally. This

would seem to indicate that work on speed of comprehension is not antithetical to work with cloze exercises and that the two can be combined to give greater reading power.

The only area in which significance was not achieved was in vocabulary. Here the experimental group did less well than Control Group C-1. This may have been due to the design of the experiment which insisted on comprehension scores of 94% on three cloze exercises at one level before moving on to a higher level. Bloomer required only one score of 96% before moving on. The added restriction in this study resulted in students working with easier written material longer. Had the student been permitted to move on more rapidly, after one score of 96%, he would have had more experience with material of more challenging vocabulary load. The effect of this is speculative only. In this experiment no student got beyond selections of tenth grade level reading difficulty by the end of the semester.

One variable which constituted a limitation of the study was that two different instructors were used. While the instructors worked together in the planning, one taught the three Experimental sections and the other taught the three Control C-1 sections.

Further experimentation in this area will involve two modifications in design. One will be to permit more rapid advancement in reading difficulty level through the cloze exercises by reducing criteria for advancement to one selection with 96% comprehension. The second will be the inclusion of a greater number of teachers for the instruction of both experimental and control groups.

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SOME FACTORS ESSENTIAL IN THE DEVELOPMENT AND EVALUATION OF A COLLEGE READING PROGRAM

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The very fact that this conference is being held is indicative of an interest in college reading and of the need that increasing attention should be given to reading on the college level. The interest and need in reading is evident, not only by the number attending this conference and other conferences of a similar nature, but also by the wide geographic areas from which the people have come. Many colleges and universities have met and are meeting this challenge through a variety of organized programs; other schools are in the process of organizing programs of one kind or another. These and other institutions are actively seeking help and guidance as indicated by the following questions:

1. Which students should be included in reading?
2. How should students be selected?
3. Which teachers should instruct these students?
4. Under which department shall the instruction be given?
5. What materials are needed?
6. Who should furnish the materials?
7. Should special fees be charged?
8. Which "machines" should be acquired?
9. How much emphasis should be placed on "speed"?
10. How should the work be evaluated?
11. How often should the course meet?
12. Should credit be given? If any, how much?
13. Where can professional assistance be secured?

Much of the current concern about college reading is an extension of the interest and concern which has come up through the secondary schools. A large number of high school students and graduates are asking for and seeking some assistance in becoming more efficient readers. Large numbers of college students – freshmen, upper classmen, and graduates – are asking for help. Some of these have problems and are poor readers while others only want to whet and develop a keener edge for more sophisticated reading skills. These requests are not only coming from students in our colleges and universities but also from faculty members.

Meeting the Challenge

Since learning to read is a never ending process and the reading skills and the reading process develop faster and more completely under guidance, colleges are charged with the responsibility of giving assistance in reading. This responsibility can and should be met by colleges through providing technical, systematic assistance in reading as a part of their regular program.

All Have Not Succeeded

There are mixed feelings concerning the place of reading in colleges even though it is through reading that most learning takes place. Colleges cannot wait until there is complete agreement on all details of a reading program before starting. This complete agreement on reading is not likely any more than on many other facets of the instructional program. However, much preliminary work must be done prior to going into

operation if even a moderate degree of success is to be experienced. The feeling is not so negative toward developmental reading as it is toward remedial reading. There is still some notion that a person can learn enough about how to read in the elementary grades to satisfy his reading needs throughout life, and that any program in reading beyond the elementary grades is remedial. However, it is encouraging to know that college reading is becoming increasingly more accepted. This acceptance is and should be more than a passive tolerance; it should be active and enthusiastic support.

Careful Planning and Evaluating are Essential

Thorough planning, careful and scientific evaluation based on research, and creative imagination are rewarding efforts for any program. These plans must not be made too hastily and should be guided by the best and most skillful thinking rather than by inspiration alone. In planning and evaluating, it would be wise to look analytically and in a quizzical manner at dead, struggling, and flourishing programs of other institutions asking the question – Why did it happen?

Observations of why programs have failed or succeeded seem to reveal that at least one of the following or combinations of the following things have been done poorly or well: planning, administrative support, the teaching personnel, materials (equipment and supplies), and realistic (or unrealistic) acceptance of progress.

Essential Factors in Planning

From observations, past experiences, and research, it seems that some of the essential factors which should be taken into consideration in planning a college reading program or in evaluating the existing one should be:

1. The needs of the students should be determined. This can be done only if we know the nature of the students, what the present level of performance in reading is, and their potentials. Not only should a knowledge of performance be known but also how to improve this performance.
2. It must be determined whether or not the program is to be developmental or remedial or both. A developmental program can be killed if it becomes remedial in nature; likewise, a remedial program can be killed if an attempt is made to instruct the students on a level beyond their present performance. Each program has unique features.
3. It is essential to have planned, systematic criteria for selecting the students who will participate. Different institutions will use different criteria. In some cases the selection may be done by testing where an entire block of students who did not reach a particular level of performance would have to take reading. It may be that students who are deficient in certain or specific skills would have to take reading. In other cases, all students may be required to take reading during their freshman year. This is rare, but it is done at Appalachian State Teachers College in Boone, North Caro-

lina. Not only should plans be made for the selection of students to participate but some system should be established by which students complete the course requirements. The time when the student would stop attending should be related to the method of selection or referral and to the objectives of the course.

4. Careful consideration should be given to the selection of the instructional staff. Staff preparation should be intensive in the area of reading and extensive in supporting fields such as – psychology, sociology, the psychology of learning, the communication skills, etc. Not only should careful attention be given to professional preparation but also to the background of experiences, the personality, and the ability to work with other teachers and the students. These teachers should possess a highly sophisticated and functional set of reading skills, reading habits, and attitudes toward reading. They should be avid readers.
5. The people who are responsible for college reading should keep up to date professionally. They should be alert to what other schools are doing, studying how to adapt desirable practices to their own situation. They should keep abreast of research and the professional literature. The staff should be active participants in professional meetings, conferences, seminars, and conventions. They should not only ask the questions of "What can I gain?" but also "What can I give?" for so often as a person gives he grows.
6. Involve as many people as you possibly can profitably in the program. The active support of other departments and co-workers of the institution should be solicited. All college teachers have definite contributions which they can make toward the success of the program. It is extremely important for all teachers who use print as a means of achieving their objectives and goals to be teachers of reading. These teachers should teach those particular reading skills which apply to their own areas of the curriculum. Thus every teacher becomes, to an extent, an integral part of the college reading program.
7. Provisions should be made for scheduling the work in reading at times during the day which will fit into and become an integral part of the total college program. Schedules should not be set up for reading classes to meet at off hours and at other intervals during the day which would prove to be an inconvenience for either students or faculty.
8. The space is an important consideration. Space should be adequate to meet the needs of the students in the most comfortable and desirable environment possible. These physical needs – lighting, ventilation, adequate and comfortable furnishings – should be provided.
9. Adequate materials, supplies, and equipment should be available. This should include adequate reading materials, supplies, and equip-

ment to be used for developing the specific and needed skills. These materials, supplies, and equipment should be kept up to date and in the best operating condition and easily accessible.

10. Budgetary considerations are of major importance. Budgetary provisions should be specific and earmarked for this purpose. It is extremely easy and sometimes convenient for funds to get lost or used at other spots unless they are precisely designated.
11. Continuous interpretation should be made to the college administration, to the college faculty, and to the students. Even though it is not likely that there will be complete agreement on what is being done, all should be informed. Reports should be complete and understandable to the people to whom they are addressed.
12. Experimentation should be an integral part of the program. Not only should those things – methods, techniques, and procedures – which have stood the test of time be used, but each school should be constantly seeking to find new and better ways of doing things.
13. Evaluation should be carried on continually, formally and informally, systematically and regularly on this question: to what extent are the stated goals and the objectives of the program being met. In this evaluation, as many people should be involved as can be used profitably. New and improved instruments and techniques of evaluation should be constantly sought.

Summary

Good reading programs don't just happen. They are planned. Effort must be put forth in order to keep good programs good. A program which is good for one school may not be good for another. Programs should be "tailor made."

INCONSISTENCIES IN TEACHER PREPARATION

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Students sometimes complain that they were not prepared for certain kinds of internship experiences. Principals sometimes complain that colleges have failed to prepare their teachers to teach reading. Some parents grumble that the schools are failing to teach reading. Certain editorial writers blast "educationists" for their jargon and courses. One is reminded of the quotation that starts, "How long, Oh! Lord, how long . . . . . ?"

Students are sometimes puzzled over values they acquire in college and practices they see in public schools. They are taught in college that teachers should work to meet individual differences, yet they know that many teachers do not have reading groups or individualize their instruc-

tion to any significant extent. Students are taught that children's literature is very important but are aware that in some states such as New Jersey, only about twenty-five percent of the schools have libraries. They are taught that reading is a process but observe teachers emphasizing it as a subject. They are encouraged to think about ways of promoting and maintaining creativity but perceive heavy and perhaps excessive utilization of workbooks and other kinds of prepared materials. Obviously teacher preparation for teaching reading must consider these kinds of relationships.

In preparing students to teach reading it is, of course, also necessary to be concerned with the quality of reading. Often students "throw up" the fact that colleges employ practices which are inconsistent with the ways they are supposed to utilize in order to teach reading. Students complain that they are really not encouraged to compare, generalize, and infer as part of their reading assignments. They complain that the main emphasis is on the comprehension skills of giving back facts, names, places: details! Naturally one must take some of these observations with a grain of salt. However, it is apparent that students' attitudes and values must be related to the understandings, practices, and skills colleges seek to promote and maintain as part of their training of students to teach reading. It has been said that teachers need an eclectic approach for teaching reading but they also need a rationale, a rationale that is consistent with authoritative thinking and their perceptions.

It is when we concern ourselves with such areas as critical and creative reading that problems emerge. Many students feel that critical reading means to criticize and look blank at the idea of creative reading. Unfortunately many potential teachers of reading find these areas of reading alien in the sense that it is not significantly related to their frame of reference and previous experiences. Perhaps this is one reason why they request so much phonetic and structural analysis, why they look for specifics in a certain sense and want cookbook recipes for reading instruction. Many students seem to feel uncomfortable when it comes to certain aspects of reading instruction because they are basically unfamiliar in a personal sense with the areas. This relationship may explain to some extent why some beginning teachers are so conservative.

There are many inconsistencies relative to the preparation of students to teach reading. Students frequently do student teaching in situations which include practices that reflect assumptions and values inconsistent with those advocated by colleges; students are supervised by personnel who have had little or no background in teaching reading; some methods courses are not adequately related to student teaching, and few studies are accomplished that focus on the various relationships which exist between college class sessions and internship experiences. The American Association of Colleges for Teacher Education has recommended that more research be accomplished within this general area. It seems strange

so little in the way of this kind of evaluation of teacher education in reading has been accomplished by colleges.

Many professors are striving hard to prepare their students to teach reading. They are confronted with resistance to newer ideas and to sound practices which are due to many reasons. Some of the critics of teacher education might focus on some of the inconsistencies which confront professors of reading. Often secondary teachers are openly hostile to the idea of teaching reading. Often schools have no over-all rationale for their curriculums, let alone reading. Often the community fails to supply the money needed for reading materials and aids. Obviously, the classroom teacher is greatly affected by these considerations too.

The writer is a professor at Jersey City State College in Jersey City, New Jersey. The College is taking several steps to come to grips with some of these inconsistencies. They include the following items:

1. A language arts curriculum clearing house is being established in order to facilitate the dissemination and exchange of research and sound practices among classroom teachers in the area served by the College.
2. Evaluation studies are being designed and performed in order to explore and study various relationships which exist relative to classroom instruction and internship experiences.
3. Efforts are being made to promote and maintain closer coordination between college and cooperating teachers.

The writer will report on selected areas pertaining to these steps to the research committee of our association. We are proud of our program but seek to come to grips more closely with some of the inconsistencies.

LINGUISTICS AND READING

Robert L. Allen
Columbia University

Before discussing descriptive linguistics, I would like to say something about the "school grammars," in order to show why linguists reject so much of the traditional grammar now being taught in our schools.

The content of most grammar books dates back to the 18th century, when the demand for such books first made itself felt. As a result of the industrial revolution, middle-class families were at last able to provide their sons with the kind of education that would enable them to "move up" in the world – and part of this education entailed learning to "speak properly." The grammars of that period promised, as have many grammars since then, to teach their readers how to speak and write English "correctly."

But no one had as yet taken the trouble to study the English language carefully. At one time, English had been looked down on as a vulgar language spoken only by serfs; even when it became the official language of England, Latin continued to be the language with greatest prestige since it was the language of the Church and the language of scholars. It is not surprising, therefore, that the first writers of English grammars should have used grammars of Latin as their models. Some of the rules to be found in these Latin grammars were borrowed almost without change, as was much of their terminology. Although an occasional grammarian recognized the fact that there was no reason why the rules of Latin grammar should apply to English, there were others who believed in a "universal grammar" underlying both Latin and English. And some grammarians, perhaps, were patriotic enough to want to show that English was almost as good as Latin.

The way to show this, of course, was to show that English had everything that Latin had. Thus, since Latin had been described as having eight parts of speech, these early grammarians described English also as having eight parts of speech. Since Latin had six tenses in the indicative, English was also described as having six tenses, and is still so described, as, for example, by Pence and Emery in the second edition of their **Grammar of Present-Day English**, published in 1963. And yet surely **would go** in the second sentence below is as much a tense as is **will go** in the first sentence:

Mr. Baxter says that he **will go** home at 5 o'clock.
Mr. Baxter said that he **would go** home at 5 o'clock.

Now it is true that Latin is related to English, although indirectly. Both Latin and English – and, indeed, most of the languages spoken in Europe – derive from a common parent language, a language sometimes called Proto-Indo-European. Since most European languages are related in this way, they tend to have certain things in common, so that European scholars were able, by stretching and twisting, to make Latin rules seem to fit the other languages as well. But during the early part of this century American anthropologists began to take a serious interest in the languages spoken by various American Indian tribes and soon discovered that many things that had been assumed to be true of all languages simply did not apply to some of the Indian languages. They found that they had to develop new techniques in order to be able to analyze such languages accurately. Some of these anthropologists became so interested in this scientific analysis of languages that eventually they established descriptive linguistics as a separate field of study.

At first these linguists concentrated largely on the analysis of non-Indo-European languages. But since the appearance of Charles C. Fries's **American English Grammar** in 1940, more and more linguists have been turning their attention to English. Not all linguists agree, of course, on

the techniques which they consider most suitable for the analysis of English or of any other language. Nor is any one linguistic approach necessarily the "right" one or even the best one for all purposes. But all descriptive linguists do agree on one thing: that linguistic analysis should be conducted with scientific objectivity. This means that a person analyzing English or any other language should approach its study without preconceptions. If the facts do not seem to fit the rules, then one should change the rules instead of trying to twist the facts to make them fit the rules. The rules tell us, for example, that the word **especially** in the following sentence cannot modify the word **peaches**:

I like all kinds of fruit, **especially** peaches.

An objective examination of the facts, however, would suggest that **especially** does indeed modify **peaches**.

The fact that there are different linguistic approaches to the analysis of language, and even different "schools" of linguistic thought, does not invalidate the statement that all descriptive linguists try to be scientifically objective. Science admits of more than one way of analyzing a given corpus of data. One kind of analysis may be best for one purpose, another for another. Personally, I have gradually come to the conclusion that the kinds of linguistic techniques used by such linguists as Fries or Trager and Smith hold less promise of providing a satisfactory analysis of English syntax for use in the average classroom than do certain other linguistic approaches, specifically Kenneth L. Pike's concept of "tagmemes" (i.e., of the correlation between positions in sentences and the kinds of units occurring in those positions) and Noam Chomsky's concept of "transformations" (i.e., of rules that show how certain kinds of sentences or constructions can be "transformed" or changed into other kinds of constructions). I cannot agree with linguists like Trager and Fries that speech is primary and that writing is merely a secondary representation of speech: in reading, at least, speech is secondary. To be a good reader, a person must be able to analyze a sentence as it appears on the printed page, before reading it aloud; the way in which he then reads it aloud merely reflects the analysis he has already made of the sentence.

Fortunately for most English teachers, but unfortunately for the great mass of students in our public schools, there are always some "bright" students who "catch on" in spite of the rules they are supposed to believe and apply. These are the students who are able to analyze and categorize on their own, without specific guidance, just as some children learn to read by themselves. But no conclusions based on the achievements of these few "bright" students can possibly serve as justification for the manner in which they were taught. This is especially true in the field of reading. "Bright" students are usually able to read well even before they enter high school or college. It is the much larger body of average students, those who cannot see "through" the rules, who cannot work out the structure of English sentences by themselves, who need our help.

By far the most serious weakness in most grammar teaching, in my opinion, lies in its emphasis on **words** rather than on larger constructions. This is true even of the kind of grammar to be found in many linguistically oriented texts. Good readers do not read by **words**; they read by larger units – primarily, I believe, by **sentence-units** or what I call **sectors**, that is, by those units that function as units on the sentence level. Good students learn to recognize these higher-level units by themselves; poor students do not. Perhaps the majority of our students are able to read at a slightly higher level of recognition than that of words: we succeed in training them to recognize phrases and clauses – but, because of the kind of grammar we use, we fail to teach them to recognize **phrases within phrases** and **clauses within clauses**.

The following three sentences, for example, differ fundamentally in their structure:

I put the clock on the mantelpiece between the two candlesticks.

I put the clock on the mantelpiece in the living room.

I wound the clock on the mantelpiece in the living room.

The structural differences between these sentences are of crucial importance for their proper reading. A good reader should be able to recognize those differences quickly and to read the sentences aloud so as to show the differences. If he were **speaking** the sentences and were to **say** them with slight pauses, he would pause in a different place in each; in **reading** them, he should be able to do the same.

But the kind of grammar we teach in most of our classrooms is of little help in the recognition of units larger than single phrases and clauses. For the purposes of reading, and probably also for the purposes of writing, the so-called **parts of speech** are perhaps among the least important areas in the whole of English syntax, and yet they are regularly allotted the bulk of the space in most grammars.

It is in teaching students to recognize constructions larger than mere phrases and clauses that new, linguistically oriented grammars could be of invaluable assistance to the teacher of reading. We need grammars that will emphasize the fact that an English sentence is **not** merely a string of words in linear sequence, like beads on a string, but rather a hierarchy of different kinds of units nested within larger units. Both tagmemic grammar and transformational grammar – and Fries's concept of **levels** or layers of structure will soon prove, I hope, that linguistics does indeed have much to offer to the teacher of reading.

IMPROVING CRITICAL READING

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Is the improvement of critical reading ability an urgent problem among adult readers or is the issue largely academic or idealistic? Anyone who has been reading **Saturday Review** in recent weeks should have no difficulty acknowledging that there is a great need for the evaluative reading skills even among the intellectual elite of this country. In the issue for January 4, 1964, John Lear, science editor for **Saturday Review** presented a lengthy statement of his view that American communities should not be in a hurry to fluoridate their water supplies, since there are responsible professional opinions and research data which indicate that fluoridation of drinking water is detrimental to the health of some persons, especially if they are no longer young. Since the publication of Lear's article, the magazine has been deluged with letters from all sorts of scientifically-oriented correspondents as well as many who are not professional scientists expounding vigorously the virtues and shortcomings of fluoridation.

Most reading instructors do not claim to be experts in the matter of fluoridation, but those who have been studying the "Letters to the Science Editor" in recent weeks must have been appalled at the lack of critical reading and thinking manifested by the writers of so many of the letters, both pro and con. Interestingly, in the past few weeks, the verbal combatants on the science pages of **Saturday Review** have challenged the logic, reasoning, and interpretive skill rather than the factual evidence of their opponents. A few uncommitted writers have even expressed a sense of mild hopelessness, because of the irrational claims of supporters of both sides of the argument, who are, in the main, highly educated scientists: university professors, laboratory research workers, government experimenters, doctors and dentists. A New Jersey reader wrote (March 7, 1964): "I am tired of the fluoride issue – not because it isn't a valid issue – but because I am tired of hearing unsubstantiated opinions, both pro and con." Another letter-writer from Amherst, Massachusetts expressed his dismay at the unscientific comments (in earlier issues) of professional scientists: "These cool assessors of scientific fact, on whose judgment we are asked to rely, present us with highly emotional letters displaying an astonishing disregard of logic."

The fluoridation controversy which the **Saturday Review** has rearoused is not essential to observation of the need for improved critical reading. There are always some controversies in the American consciousness, and at times they are more serious than fluoridation. In the early 1950's McCarthyism revealed in many Americans the inability to read and think critically; in the early 1960's the fallout shelter excitement was similarly revealing.

If the improvement of critical reading ability is urgent, how and when is it to be accomplished? In the broader sense, it may not be difficult to decide when, since the high school and college years are best suited to the teaching of the critical skills. One reason for the choice of these levels is that high school and college students are more academically involved than any other major learning groups in America. On the one hand, elementary pupils do not explore their subjects as deeply, and thus do not venture into many of the controversies which call for critical reading of various contents, although it is unquestionable that certain basic skills of evaluation can be taught in the elementary grades. Adult education groups, on the other hand, do not constitute ideal classes for the teaching of critical reading, since the enrollees are often less committed to serious pursuit of the work which may not be a vital part of any prescribed curriculum or set of prerequisites to subsequent activity. Also, adults are not accustomed to evaluation and ensuing modification of their study habits. A second reason for favoring the high school and college years as the time for teaching critical reading is that they provide the highest academic levels at which the learning audience is still largely captive and thus is willing to submit to rigorous demands upon the thinking processes.

The determination of how to improve critical reading skill may not be quite so simple, although there are several possibilities from which an instructor can choose his techniques. At the simplest level, instruction may center about the development of (1) awareness of the significance of copyright dates, especially in fields such as astrophysics; (2) knowledge of the author's competency and background in various fields (3) familiarity with the publisher's general reputation and specific biases, and (4) limitations and exceptions to 1, 2 and 3. Another set of standard tools for critical readers is the kit of understandings necessary to defense against the logical fallacies. Once these basics are learned, student readers should be ready to consider the broader concepts of tone and intent as practiced in Glock's **The Improvement of College Reading**. Elements of college courses in logic and semantics also contribute to critical reading proficiency.

The foregoing techniques have been widely used in the teaching of critical reading skill. If improvement of this ability is necessary, perhaps some additional instructional approaches should be considered and tried. It might be worthwhile, for example, for college instructors in the various academic areas to identify, explain and dispel some of the mythology in their respective areas. History professors might choose to burst some of the illusions about the legendary heroes of the Old West, such as Davy Crockett, or their romanticized acts of heroism such as the Battle of the Alamo. Almost every field of academic activity has its own mythology; professional education is no exception. Consider the multitude of illusions surrounding intelligence tests and the I.Q. concept. The sociology professor can identify a host of myths which white persons believe con-

cerning Negroes, and vice-versa. The systematic shattering of commonly-believed illusions in each of the academic disciplines would force college-age readers to rely more upon fact and less upon myth. In addition, some awareness of the extent of this type of mythology would make the college reader more cautious when dealing with the printed word.

Another sub-skill of total reading comprehension that can be used to improve critical reading ability is that of predicting outcomes. In Western cultures, prediction is a standard, frequently-occurring element in mental activity; that is, nearly everyone makes numerous predictions in a typical day even though he may not be aware of this tendency. If a wife dents a fender, exceeds her budget, or purchases a hat that is "way out" she predicts, at least to herself, the sort of reaction she can expect from her husband. The husband, on the other hand, forecasts the failure of the car to start on a particularly cold morning, his prospects for promotion now that his immediate superior has been transferred, the danger that the Yankees will win the American League pennant again, the certainty that Mrs. Klein will play bridge as ineptly tomorrow evening as she did on the other occasions when she was his partner, and that Liz Taylor's current marriage will not last. Even young children are involved in prognostications concerning the reaction of parents, teachers, peers and non-human circumstances.

Since Western man has such a propensity for prediction, reading instructors may as well direct it to some advantage. If the predictive tendency can be sharpened and refined, high school and college readers can become more insightful critical examiners. Probably at the outset student readers should be made aware of the extensive predicting that everyone does, as illustrated by the husband and wife in the preceding paragraph. The next step should involve determination, even if subjective, of the relative quality of various prognostications in terms of the evidence upon which they are based. In this step the student becomes distinctively conscious of something that he has long realized sub-consciously: that various predictions differ in the reliability of their bases and thus in the likelihood that they will occur in the long run.

Next, the student readers should be confronted with sets of information on the basis of which they are asked to make and defend reasonable predictions. These sets of forecasting bases can be drawn from fiction as well as factual prose. In fiction an instructor can present a story line up to a certain point and then ask students to complete it; or, after a plot has been comprehended, the instructor can hypothetically change one or more key events, and then allow student readers to indicate how the plot could be resolved. Another exercise presents certain background information such as a description of a lunch counter sit-in at Durham, North Carolina. The student is then expected to indicate what someone such as the Senate majority leader or ex-President Truman would say about the situation. In an inverse form, the reader can be given a bit of emo-

tive text to which he responds by answering the question: "Who would be likely to say this?" or "Who would want you to believe this?"

Because the reader's failure to perceive his own motivation is one of the obstructions to evaluation in reading, a third approach to the improvement of critical reading can be attempted through provision of what Dr. Ralph Ojemann describes as the "causal orientation." For ten or fifteen years, at least, Ojemann and his disciples at the University of Iowa have been striving to teach the rudiments of human motivation and adjustment to students of all ages. Their programs even include extensive primary grade basal reader lessons which have been modified so that seven- and eight-year-old pupils can begin to appreciate the dynamics of motivation and personality interaction. If primary-level youngsters can learn to appreciate their own drives and social motives, certainly college students should be able to gain some ability to examine their reasons for doing and saying certain things.

As a means of reducing emotional interference with critical reading, the student's understanding of his own motivation can be taught via a survey of the drives and motives which impel human action. Practice exercises of the type "To Which of Your Needs Does This Appeal?" provide opportunities for application of understanding of motivation; samples may be found in **Improving Reading Ability**, by Stroud, Ammons and Bauman. Of course, there is no guarantee that a reader who understands motivation at a verbal level will apply his knowledge to himself when an emotion-charged situation arises. There are plenty of examples of psychologists who possess great knowledge of personality and adjustment, but who do not perceive that they, too, illustrate and respond to the principles they preach. However, the reader who has an awareness of his drives and motives is at least better equipped to resist prejudices on the one hand, and seductive advertising on the other. If some of the scientists who have written to the science editor of the **Saturday Review** had better appreciation of their motives, their letters would reflect less emotion, more fact, and better logic; and some of the letters would not have been written.

Finally, almost any scheme which will enhance the student's background of information will improve his critical reading prospects. In order to evaluate the validity of a printed statement it is usually necessary to possess considerable information about the subject. Thus, the stimulation of wide reading, the use of appropriate audio-visual devices, even the teaching of more rapid reading contribute to critical reading potential.

While some of the answers to the question "How should critical reading be improved?" may fall into the bailiwick of the reading instructor, the exposure of the specific mythologies, the development of skill in prediction, and the broadening of background information can all occur in the various academic disciplines. Therefore, it is possible for almost every

high school and college teacher to contribute to the improvement of critical reading ability. It is also extremely desirable.

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DEVELOPING THE READING SKILLS OF MATHEMATICS AND SCIENCE

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Students are often inarticulate about the skills of reading and how they should use them in reading specific subject areas such as mathematics and science. When a student is asked to name the reading skills he uses, he may mention vocabulary or words, comprehension, a lot of facts, or the main point of what the author is saying. Some students may complain about their slow rate of reading. However, few will relate these skills directly to the subject areas of mathematics and science. Such skills as establishing purposes for reading and adjusting one's reading to it, seeing relationships among facts, drawing conclusions and making inferences may not be identified by the students as reading skills.

As the students are able to recognize the reading skills pertinent to a subject area, they can begin to know those skills in which they need to be proficient in order to read the material effectively. An understanding develops about what they must be able to do. But the students still may not know how to improve the use of the skills and how to increase their use of the skills. Shaw maintains that the laboratory manual of a science course is the most difficult book for some freshmen. He wonders how they utilize the manual as a preparation for performing experiments. Similarly, in mathematics, he questions whether the students are thinking critically about how effectively they are studying the textbook.[1] Students obviously need instruction in how to read such material as mathematics and science.

The Basic Responsibility of the Teacher

Recognizing the evident need to instruct the student in ways that will help him to read printed materials effectively, Carter has listed postulates which should be followed by subject area teachers. In these postulates it is suggested that each teacher should (1) be responsible for developing background in his area of comprehension, (2) be expected to

develop the special and technical vocabulary, (3) show his students how to study in their textbook, (4) be concerned with selecting and adapting material to the reading level of the students, (5) be aware of the problems in his area and how these problems may be solved. Finally, it was noted that the instruction given in each subject area should be developmental in nature and appropriate for all students.[2] The responsibility of helping the student read in a subject area such as mathematics and science is squarely placed within the classroom procedure of the teacher.

Therefore, in addition to such skills as a wider use of vocabulary, techniques of studying the textbook, and basic comprehension of the information presented, other skills need to be developed which will actively involve the thinking of the student. In mathematics and science Bauman has suggested instruction in such skills as (1) the development of concepts, (2) wide reading from a variety of sources, (3) inter and intra relationships of facts and understandings, (4) and critical reading to judge the pertinence and value of what is read.[3] These skills involve far more than the mere rote learning of facts. Rather, the students' ability to think is challenged.

Understanding the basic concepts, which usually include the acquisition of new vocabulary, requires students to understand fully the phenomenon, the fundamental principle, and the process upon which the concept is based. It is not the memorization of words. Similarly, the interpretation and evaluation of relationships in the subject area require a mastery of the underlying concepts and necessitate a widening scope of background information. Halfter and Douglass maintain that college students are dependent upon thinking reading skills. These are explained as sharing with the author in his experience of generalizing affirmatively, negatively, hypothetically, or consequentially.[4]

If, therefore, we are concerned about students' ability to read for ideas and to use the ideas, we are concerned about their ability to think in the context of the subject area. In mathematics this involves an understanding of the processes and their interrelationships. In science, students must be able to see the significance of findings, to generalize from them, and to see their application. Not only must they know how to study their textbook, but understand the concepts and be able to apply the steps of problem solving.

Developing Concepts

The use of the term concept places emphasis upon the ideas represented by the vocabulary of a subject rather than a mere recognition of the printed symbols. Betts points out that:

> the mere pronunciation of words, the memorization of phonic in mathematic rules, and other emphases on rote memory and mechanics lead to the use of empty words. This false security in words leads to the acceptance of a carload of words without a single idea. The acceptance of word manipulation rather that the thinking about ideas is called **verbalism**. And verbalism can become a malignant disease in education, dooming the would-be learner.[5]

Students must understand the ideas represented by the vocabulary, for all other skills of comprehension are dependent upon this understanding.

There cannot be any effective problem-solving and interpretation unless the basic ideas are understood.

Henderson lists a sequential order of steps for a teacher to follow when he seeks to have students develop new concepts and symbolize these concepts with words or mathematical signs. They are:

1. to provide the students with a selected and organized set of experiences with things or ideas already meaningful to them,
2. to get the students to intellectualize or talk about the experiences in order to enable them to abstract the common elements involved,
3. to acquaint the student with the symbols used usually to represent the concept, and
4. to provide the students with situations in which they have to use and see the significance of the symbol and the idea it represents. [6]

Inherent to these four steps is the importance of students' ability to relate the new idea to experiences and knowledge in their background which will enable them to tie the new information to what they already know. In science, I agree with this view and suggest further that if we would illustrate, observe, study, and discuss a phenomenon and the concept behind it first, before we label it with its appropriate word, we would find that a clearer understanding by the students of the science vocabulary results. [7]

Words in mathematics and science may also be classified. Some words are the labels of phenomena while other words merely label parts or aspects of them. To illustrate, in physics the word atom may have such other words as electrons, protons, neutrons, mesons, neutrinos, hyperons, and antiparticles which compose the atom. The words can be grouped or outlined in order to indicate their relationship to each other. Such a grouping may well indicate the relationship of the various concepts of each term thereby giving a structure of the understandings. In all areas of science and mathematics such a grouping of vocabulary is possible.

Developing Comprehension

The building of concepts and general background is fostered through reading and study. As the student is able to generalize perceptual experience by means of adequate concepts, he will begin to grasp the growth of concepts in each subject area. His reading should be guided by a search for answers such as "Why is this important?" "What is the underlying principle?" Reading will develop the student's store of knowledge, help to develop his vocabulary, and make it more likely for him to be able to interpret and evaluate what he reads. [8]

Students need to realize the type of reading required for mathematics and science. The manner of reading requires intensive precision and attention. Nearly every word is important in order for the student to understand the phenomena, process, or problem. As was indicated in the development of concepts, the relationships among the main idea and details must be noted in order for the great fund of factual information to have a meaningful structure. A specific series of study steps that may help the students is suggested by Bauman. [9]

Techniques of Study

The student's inefficiency in using his textbook may be a cause of difficulty with reading to understand in mathematics and science. It has been noted that printed materials in these areas can be most difficult for a freshman. It has also been noted that the instructor should help his students in their use of the textbook. The characteristics of a textbook should be pointed out to the students. These study aids of the texbook, such as introduction, summary, question, graphic representations, word lists, should be illustrated to the students and assignments involving their use given.

The well known study formula, SQRRR is still of value for the student to use. The formula requires a mapping of the assignment, a reading of it for specific purposes, and a reflection and check on the information obtained. The survey helps the student to size up the reading material by noting its scope and the textbook aids to study. These same aids are used again in the review. Essential to effective study by any reader is his clear delineation of purpose. The purpose regulates how he reads the assignment. So often the students are not quite sure of their purpose other than that they have an assignment to complete. They may well need to be told what they should know and understand from their reading and they may need to be given suggestions about ways of accomplishing their objective. The teaching procedures in the classroom must be designed to give students continual practice in purposeful reading and study. The teacher, of course, must also know what his purpose is and how to translate it to specific student assignments.

Concluding Statement

The essence of this paper has been to stimulate and direct the student to think about what he reads in mathematics and science. Rote memorization has not been found to be as effective as functional learning of identifying and interpreting common principles and understanding.[10] If reading involves the use of language and the skills of thinking, then students need to understand concepts, to see the relationship of ideas, and to delineate their purpose as they read. Classroom procedure must be designed to guide the student in his reading-thinking skills.

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THE USE OF PERSONALITY TESTS IN THE READING PROGRAM

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It has been said of the psychologist that he doesn't really have any better answers than anyone else – he just has better questions! This presentation cannot help but perpetuate that aphorism. There are no "pat" answers to the problems arising from the reciprocal influences between personality and reading; but there are ways to organize the pressing questions which might lead eventually to useful and meaningful answers. Let us ask ourselves just ten good questions.

Psychologists, from the early Freudians to the new Skinnerians have described personality as an enduring pattern of behavior in the individual's own history of coping with life's details. His way is a "style" which is characteristically his; and it resists change with stubborn and clever devices. The MMPI purports to expose this unique quality of personality. The Edwards Personal Preference Scale does the same thing; so does the Rorschach. Whether the conventional instrument is a projection-inviting picture, an inkblot, or a series of forced-choice responses to hypothetical events, psychologists attempt to capture the idiocratic portrait of a subject as a recognizable totality.

Now, reading methods seem to work the other way around. Teachers of reading and writers of basal series seem to want to find the one technique which will do for the most children. Perhaps they forget that, like the finger-print, personality is unique for every person. Psychologists talk of the individual roles that their patients play; reading specialists talk of grouping the Sparrows and the Robins. Psychologists explore the characteristic ways that their subjects approach a task, relate to the task, and how they feel about themselves when it is over. Reading instructors may give anywhere from 10 to 40 children the same book, the same story, and request that they deal with it in largely the same manner.

For example, Rorschach experts describe an individual as a "Big W" or "Little d" person, depending upon how he moves towards the examination of the inkblot task. He may approach it as a **Whole**, or he may react first to the details. Is there any relationship between the way a young learner approaches his life tasks as revealed by the Rorschach, and the way he feels most comfortable in approaching the new words in his reading lesson? If he is a Big W child, perhaps the whole-word-method will bring him to satisfying competence in word recognition and rich understanding. If he is a Little d child, perhaps one of the phonic-methods would be best for him.

In the Murray TAT, subjects are said to reveal characteristic **needs** within themselves which filter the realities so that they can find the satisfactions available at the moment. People see what they need to see, the psychologist says. In addition, people find that their environments **press** them to perform in certain ways. Now, these needs and presses may not exist in the real world, but the subject thinks they do . . . . and he is convinced to the extent that he behaves as if they were validated. **Reading** teachers have become, of late, enthusiastic about individualized reading. The TAT has found, through the projected reactions these pictures aroused, that certain subjects have such high **Affiliation** needs that they dread being alone, and when pressed to produce in an atmosphere of solitude, work considerably at less than their best. There are, moreover, certain opposite people who demonstrate a great need for **Autonomy,** and would feel hemmed in, put upon, and resentful of the press in a group method. Does reading methodology take these matters into consideration?

Every undergraduate student taking a child development course learns to interpret and perhaps even construct, a sociogram for a specified group of youngsters. He learns to identify the isolate, the star, the chains, and the cliques. Now reading personnel are prone to place a child in a reading situation which is dictated by the results of a superb diagnosis — of only reading. What happens if several children are alike only in their reading problems? The child is a social person as well as a reading person. Should the clique ever be a reading group? Should a star read with an isolate? We seem to prefer to cater primarily to their long-vowel-short-vowel deficiencies at the expense of their psyches. It cannot be possible that only the one part of a child's behavior which involves reading is present in a reading lesson. It is more likely that the whole child is there — and part of him may resent every minute of it — as the sociogram would have revealed to any observing teacher.

Sylvia Ashton-Warner, in two charming books, **Spinster** and **Teacher,** has revealed how deeply involved children are in words. She had small success, she reported, in teaching about Dick and Jane to the little Maoris of New Zealand. It was only when she discovered that they could give her their own words, that reading began in earnest. Psychologists have long

been aware of the connotative load which a word has, and they use this knowledge in word association tests, like the Jung or Kent-Rosanoff lists, which reveal rich information about an individual's personality and value systems. Even the FBI knows that a loaded word will cause an observable dfference in the recordings of the lie detector. But the writers of children's reading series do not seem to know that the 250-word controlled vocabulary of a given text may not contain more than a dozen words that would cause a youngster's electronic record to quiver one little bit if he were hooked up to one of those gadgets while he was dutifully reading what others sav is best for him. Any psychologist could tell the publishers what most children are really concerned about, and what individual children are uniquely thinking. Studies of childhood fears, joys, wishes, likes, dislikes, and daydreams abound in the research literature of psychology. Is any of this information of concern in the teaching of reading?

Recent and vital interest in creativity has given us new insights into this complex trait. Present indications are not entirely complimentary to the classroom teacher, who is pictured as holding conformity, regularity, the accumulation of factual knowledge, and self-control as paramount virtues. The venturesome, imaginative, free-thinking, and happy-go-lucky child is soon shown his proper place. The work of Goetzels and Jackson, Torrance, Guilford, and Bruner have brought a clearer view of the difference between divergent and convergent thinking. It is certain that in this connection, intelligence and personality are co-participants in shaping the behavior patterns of all children. Now, how much of this has shown up in the reading lesson? Are divergence and convergence innate, acquired, permanent, changeable? Can a creative reading teacher create creativity in a previously non-creative child? Research suggests that the answer is "yes".

Cattell's 16PF Test has been reconstructed for younger subjects to offer a comprehensive personality evaluation briefly and objectively. What information does this instrument provide the reading teacher, for instance, in the use of workbooks and other practice materials? In the first place, this instrument tells us that girls are different from boys; a fact that teachers seem to recognize only at recess time. Reading drill materials are asexual as presently published. This may account, in part, for their questionable transfer value. Secondly, can a Schizothyme and a Cyclothyme as defined in this test learn equally well in the same workbook, even though they have identical 4.6 scores on the Gates Survey? Can the child rated by Cattell as falling in the Premsia classification of artistic, inner-directed, self-indulgent, and impatient behavior, think and create with the same materials as the Harria child, whose behavior is practical, logical, realistic, and self-reliant? Has the teacher of reading anything to learn here?

It is interesting to note how much of what the psychologist calls projective technique is available to the teacher during the regular

processes of classroom routine. For one, take the drawings of children. Machover has given us some fascinating interpretations of these original works which reveal both the charm and the terror of childhood. Alschuler and Hattwick have a two-volume classic on the meaning of the colors used by children in their paintings. Buck has a protocol for the significant data which are exposed when a child draws a house, a tree, and a person. But alas! At 9:30 in the morning during an activity period, little Susan produces an angry red and black painting she labels with her older sister's name; and at 10:00 o'clock she goes to her reading lesson with 15 other children, each of whom produced some dynamic revelations on their own easels. Again alas? By 10:05 they are all traveling through a blue gate, down a new road, toward a green hill in the fictional company of a family which never paints black and red sisters, never draws houses on fire, never smears over a mother portrait with fecal brown! Is it possible for the reading teacher to deny the difference between the sister-hating Susan and the self-hating Sally who, during the same activity period, absolutely refused to dirty her dainty hands with finger painting? It would seem that we are making children serve reading, not reading serve children. The psychologist knows that children read with "guts". Is it possible that teachers think children read only with their eyes?

This does not, by any means, bring us to the end of the list of available personality instruments which have significance for teachers of reading. A sampling is all that we may be permitted at this time; but, hopefully, this sample has provided us with ten good questions. Here they are. The use of personality tests in the reading program should provide the answers.

1. What do we know about the enduring, characteristic style with which each child approaches his life-tasks in general and his reading lessons in particular?
2. By what behavior does the child protect his image of himself as a person and as a reader?
3. What do we know about the child's own value systems, particularly the place of reading in his private hierarchical arrangement of these values?
4. How does the child balance the pressure of what he expects of himself as a reader against what is expected of him in the environmental pressures?
5. Of his deep personal needs which can be identified both by himself and his school, which can be met through reading?
6. Does he move toward, away from, or with others in line with the way others move toward, away from, or with him?
7. What subliminal messages does he send to the world through his drawings, his play, his body movements, his facial expressions, and other non-verbal behavior, which have implications for the way he would like to be taught and the books he would like to read?
8. How can we make use of the private vocabulary he thinks with in his daydreams and nightdreams, his thoughts of peers and adults, his fears and joys, with the conventional word load of his reading lessons?
9. Filtered through the idiosyncrasies which make him into a personality, how convergent or divergent is the native ability that emerges during a reading lesson?
10. What methods and materials, techniques and things, insights and instruments, patience ad perseverance, strength and skill does the reading teacher have in her own bag-of-tricks which will enable her to bring reading to the child and the child to reading in a marriage that will last a lifetime?

THE DYNAMIC FIELD OF VISION AS APPLIED TO LEARNING

Harold Wiener, O. D.

"To understand the child it is necessary to understand his vision. .", so stated Dr. Arnold Gesell.[1] Experiences with educators have shown me that insight into the function of the visual process aids teachers in understanding the learning needs of children. This insight into the visual process often reinforces ideas teachers have had, but could not substantiate. For many years teachers have been concerned with proper posture, reading distance, concentration, speed reading, tachistoscopic work and many other factors relative to visual performance in the learning act. Understanding the visual process will give the educator a physiological, rather than an emotional or aesthetic basis for the factors considered above. In this paper practical suggestions will also be given of ways to set the stage to aid learning through vision. Understanding must precede application.

Vision

The vision mentioned by Dr. Arnold Gesell is not the 20/20 visual acuity one usually thinks of, but has to do with vision which is responsible for gaining meaning from our surroundings and initiating action. Vision is a learned process which allows us to carry on a number of functions.

Vision:

is responsible for maintaining body balance and controlling the direction of body movement.[2]
serves as a modality through which we gather information relating to our external world. After the information is in, it becomes necessary to determine what action must be taken in order to meet our needs for most effective results.
acts as an extension of the hands and body; it connects us with the world outside the reach of our fingertips.
supersedes all other sense modalities and can be used in place of the other senses. When you cannot touch, you can feel texture through the use of your eyes.
serves as a modality for communication. "Vision allows a man to walk into a room, leave a piece of paper with a few chicken scratches on it, walk out and have another man come in, pick up the paper and understand that he is to wait for the first man."[3]
allows us to learn vicariously through the use of written symbols.
allows us to accumulate, store and recall experiences.
allows us to organize, mobilize, and utilize aggregates of experience.

As you can see, an understanding of vision requires more than a discussion of image formation and an analogy to a camera. The physical formation of an image on the retina of the eye is but one consideration of the physiology of vision. "Everybody knows that objects themselves do not get into the eye. Neither do small replicas of things get into the eye. The object does not have a copy in the image but a correlate. The fact is that the optical image does not have to be like its object to make vision possible. Vision depends on the retinal picture, but what an inadequate thing the image seems to be when compared with the result. The visual

world is an unlearned experience that is meaningless when seen for the first time and what one learns to see is the meaning of things." [4]

Vision – The Process

Vision is a learned sensory-motor process intimately related with all physiological systems of the body. [5] The gross structures of the visual mechanism are: the eyes, inner and outer muscles of the eyes, the brain and spinal column, the muscles of the neck, shoulders, upper, middle and lower back, the legs, and the outer edges of the ball of the foot. The lens of the eye is innervated by the autonomic nervous system and is related to the visceral system of the body.

When something attracts our attention, our eyes, through voluntary activity, turn to locate that object in space. The eyes reach out and grasp that object, holding it for inspection in a manner similar to the use of hands. The pointing (convergence) mechanism of the eyes is controlled by the eye muscles which are part of the skeletal nervous system of the body. [6] Not only the eyes, but the entire body acts to locate an object in space. Lines drawn from the inter-vertebral spaces would come to a locus of points at a distance equal to the position of the object of regard. Due to its inter-relationship with the gross muscle system of the body, the convergence mechanism of the eyes reacts to alterations in body balance and can affect body balance.

After an object is located and grasped in space, the process for meaning and understanding is started by the focusing (accommodative) mechanism of the eyes. The lens of each eye automatically brings into adequate focus the object of regard. The inner eye muscles controlling the action of the lens receive their innervation from the visceral nervous system.

The energy received by the retina, which came from light being emitted by the object of regard, is changed into electro-chemical energy and is transmitted as a series of nerve impulses along the nerves. The nerve impulses generated by the retina are sent back to centers in the brain which are responsible for intellectual function, assimilation, selection of a course of action and other factors with which vision is usually associated.

Vision – Balance – Mentation

Another important factor has to do with how the gross motor system is affected by the retinal impression. About 45% of the nerve fibers from the peripheral retina generate nerve impulses which are routed to the muscles of the neck, shoulders, back and legs – the balancing system of the body. [7] Should body balance be disturbed, mentation will be interrupted until an equilibrium is established between the task and the gross motor system of the body. "Should we concentrate attention to the middle 15^0 – 18^0 of the visual field, the peripheral visual field will be blocked, body balance will be disturbed and mentation will be affected." [8]

Vision — Stress

Stress can result in the physiological process of the body due to the intimate relationship between the controlling mechanisms of the internal and external eye muscles and the neural controls of the body. Dr. A. M. Skeffington has reported a study conducted under the direction of Samuel Renshaw, demonstrating physiological stress while the subject was engaged in a visually triggered problem solving situation. As the subject was reading, changes in blood pressure, skin temperature, heart action, respiration, diameter of blood vessels and refractive status of the eyes changed to indicate a stress pattern similar to that one experiences when he is frightened or angry.[9] Harmon repeated the experiment and demonstrated the value of a convex lens in altering the physiological stress pattern to a stress free pattern.[10] Harmon also demonstrated the effect alterations in the gross motor system had on perception. Distortions in perception were illustrated through the use of galvanic stimulation of the muscles of the neck and back.

Adaptation

When the organism cannot process information satisfactorily to meet the demands of the task, adaptation of the visual mechanism results. Difficulty in organizing, mobilizing and utilizing aggregates of experience can result in astigmatism, myopia, fusion problems, refractive problems and withdrawal from the task.

Difficulty in matching information between the various sense modalities and the gross and fine motor systems can result in a visual problem which will hinder scholastic performance. The written symbol should regenerate experiences from all of the sense modalities. Many times the child must take the visual impression and transfer it to the speech-auditory mechanism before he can use it. This results in a time lag, interfering with understanding and perception and an adaptation has to be made in order to maintain performance. The adaptation may assist the child in getting good grades, but there will appear changes in other areas such as personality, emotions, and so forth.

Our purpose as optometrists is to recognize the adaptive syndromes and through the use of lenses and training help the child improve performance to the point where the visual system leads in the processing of information. The teacher has to be observant of the child's performance in the learning task.

What To Look For

The child, who gets close to his reading and writing; squints; complains of headaches, burning eyes, print fuzzing and clearing; does not perform up to grade level; has difficulty in general coordination; has trouble copying from the chalk board; reverses letters and numbers; has poor comprehension, may have other problems, but he will also manifest a visual problem. This will be true even if he should measure 20/20 visual acuity on the Snellen Chart.

What To Do

From the information we have discussed, one can readily realize that vision is not a simple act, but one which is complex and has a positive bearing on how we function in our world. The child can benefit from the teacher's application of a broader understanding of vision when this concept is applied in the classroom. To do this it is necessary for the teacher to provide: experience through all the sense modalities, integrated movement of the gross motor system, for development of gross and fine motor movements, for knowledge of the importance of posture in the learning act, and knowledge pertaining to use of the eyes in a visual act.[11]

Getman,[12] Kephart[13] and others have written excellent guides for teachers describing procedures for developing gross and fine motor movements, hand eye coordination, and procedures for developing the integration of experiences through the sense modalities.

Setting The Stage

Dynamic posture is an essential part of the seeing and learning process; therefore, the posture of the child engaged in a reading or learning task will be our first consideration. Suggestions include:

Sit in a chair which allows the feet to rest flat on the floor.

Sit up with the base of the spine pushed into the back of the chair.

Both thighs should rest on the chair, thereby carrying the body's weight.

Lean forward from the waist, allowing the back to assume its normal curvature.

Rest the arms on the desk.

While reading, hold the book parallel to the plane on the face.

Hold the book at a distance equal to the length of the forearm, measuring from the elbow to the first knuckle.

The Dynamic Visual Field

How many times have you heard the term, "CONCENTRATE!"? Optometrists would like to have this directive changed to, "Let it happen!" Vision is an automatic process and should be allowed to happen for maximum results. When one concentrates to the point where he focuses only on what is directly in front of him, then he will function as though he were in a stress pattern. "Under stress there is constriction of all the perceptual field and the child observes less, sees less, remembers less, learns less and becomes generally less efficient."[14]

Through the use of the Dynamic Visual Field, one can observe more, remember more, learn more and become generally more efficient. The Dynamic Visual Field is the amount of space a person maintains in his awareness as he walks, drives, reads, writes, views television, talks, listens, or any other task in which he might engage during his waking hours.

Summary

Vision is a dynamic process, involving the entire organism. It is constantly in use, making adjustments and causing alterations to all mechanisms of the body. Through the assistance of the optometrist, the teacher can utilize these optometric principles for the benefit of the student, to enable him to reach the full potential of his ability.

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NEW DIRECTIONS FOR COLLEGE READING CENTERS

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New directions for college reading centers? New? Is anything new? Instead of new, why not desirable? Desirable directions for college reading centers.

If desirable is in the sphere of the professional, it is related to service (of which teaching is an important aspect) and research. If we go along with the Chinese philosopher, Laotzu, we nod our heads in agreement with his "Man at his best, like water, serves as he goes along."

To serve whom? Why, humanity, generally; students, particularly; members of the teaching profession; the citizens who pay the taxes and tuitions that keep us in work and children who need help.

If we see ourselves as professional workers and are dedicated to service, teaching and research, we do everything possible to determine through study, observation and research the needs of the groups mentioned.

Needs are a bit like icebergs. There is so little above the water. You try to meet the need of the obvious portion above the water and your efforts may merely increase the portion below the water. To remove the obvious, one must work on such basics as human needs. THE cause is often only A cause. To increase the obvious one decreases the hidden.

A desirable direction to me is that of determining real basic needs and causes, be they physical, psychological, social or cultural. This presupposes leadership from people who are intellectually honest and free from entangling alliances which may pre-determine findings – findings which, all too often, increase, rather than decrease, the needs of those whom we are to serve.

This determining of basic needs is time-consuming and can be frustrating to those of us who count the number of "cases" we can "encase" in a day, or the sheckles we shake from the public's purses, or the collecting of information for publications that will bring us promotions, increments and prestige. The more we identify with people of all ages; the more we know of anthropology, sociology, psychology, psychiatry, and physiology; the more we love people; the more likely are we to determine people's basic problems, needs, feelings, thoughts and behaviors.

Service for whom?

Let us start with a consideration of the students in the colleges where our Reading Centers are based. Maybe a desirable activity would be self analysis. Pick up a mirror. Take a long look. Does what you see make you want to reveal confidences? Make you want to learn? Make you want to read? to study? Do you look like something other people would like to be with? Keep on analyzing. What are your motives? Do you live, or are you part of a routine? Is your time so scheduled that you cannot soak up esthetics from the arts, particularly the art of living? How long since you have enjoyed a sunrise or sunset? How long since you took time to visit with the Butcher, the Baker, the Candlestick Maker? How long since you enjoyed telling or reading stories to children, particularly your children? How long since you've spent a day with children in school?

Now, outside. Look at the building where your Reading Center is housed. Does it invite you in? Does it look more like a factory and less like a place for gracious living, hospitality and help? Some of our centers are so antiseptic in appearance: you can almost feel the needles – you remember tonsilectomies as you come to the clinics with their doctors, "scopes" and "ias"!

Why can't our work be conducted in pleasant, comfortable, attractive places? Comfortably seated, smoking a cigarette, sipping coffee, a student is much more likely to express problems and causes than he is if he's seated on a straight-back, unupholstered chair, looking at a gimlet-eyed, grim, efficient "Doc" and feeling like a paramecium under the lens!

Securing such an environment is a desirable direction, I think. Stocking it with attractive reading materials is a concomitant and desirable direction. Selecting and providing the reading materials the students enjoy is definitely a desirable direction. The selecting should, I think, be done by students and Center personnel working together. And I also believe that our stuffy middle-class values should be left as far out doors as possible, when students recommend CATCHER IN THE RYE, SPORTS

ILLUSTRATED and MAD. Our guiding star should be the dictum, "Take them from where they are" — and how can we determine that point if we disregard or ignore the choices?

All this takes hard work and persistence. You suffer frustration and ridicule as you try to implement your findings. I know. It took me seven years and a change of administration to have our institutional brindle covered with attractive colors. Power of tradition and stereotyped thinking are pretty strong opponents!

Desirable direction in the provision of reading materials will take us into our institutions' libraries, student unions, dormitories, barber shop and lavatories. I hasten to acknowledge that I know but one institution that provides interesting reading materials in the campus barber shop and lavatories. But why not make provision for interesting reading in spots on the campus students read or might be encouraged to read? That activity would be of service to all our students.

Now how about the students who are in academic hot water? Do we make it easy for these people to come to the Center for help when the students need help? Do we serve only those who come for credit? Is our service provided only to those who are recommended from guidance centers?

A desirable direction might bring us face-to-face with problems like:

1. Should classes in reading and study habits be scheduled? Should attendance be compulsory? Should academic credit be given?
2. Is it necessary or desirable to use all those texts on the poor student who can in a few words express his problem as he sees the problem?
3. Is it desirable to add to the students' problems in reading and study by loading them with books, mimeographed papers and books on how to study? Why not work on the basic texts that are used in the troublesome areas?
4. Is there transfer of training from general study to specific subject-matter mastery?
5. When twenty professors teaching the same subject require different study habits, how best do we provide for individual differences?
6. What size group is best?
7. Who should teach these groups?
8. Should there be provision for individual as well as group help?
9. Should there be provision for training college faculty to teach the reading and study skills of their individual courses?
10. How do you get college faculties to take pride in the numbers of students taught successfully rather than pride in the number flunked? How do you get them to consider learning as well as teaching? How do you get them to some method of teaching other than the lecture?
11. Can classes in teacher education serve as tutors and group leaders for the students who need tutorial help?

College students interested in becoming teachers of reading and study habits, be it in reading centers or in the classes they will be teaching, can be trained in this work by moving, practically, through tutoring, group instruction and seminar discussion to mastery of theory and practice of reading, study, learning and teaching in elementary and secondary schools.

So it would seem desirable for reading centers to be identified with elementary and secondary schools. Some members of the reading center staffs should be people experienced in teaching various subjects on the various levels. Ideas need to be tested in classrooms before they are announced as practical for teachers with from 20 to 40 pupils in a class.

And wouldn't it be helpful if, when asked, a reading center director could say, "Come along, I'll show you how this theory or these principles actually work in a classroom"?

Traditionally, reading centers are reading clinics. Some reading centers are reading clinics in "old bottles with new labels." A desirable direction is consideration of the whole clinic business.

The semantics! What connotations do children have for words like clinic, doctor, tests, retarded and remedial? How do parents interpret mixed dominance, diplopia faulty aculomotor control or functional disturbance? One affliction with these words, and parents may not only produce no more offspring but also regret the production in question.

Hand-in-hand with the service function is, of course, the research. This research is desirable when it provides teachers with knowledge and practices that improve the work of the teacher, that give her increased satisfaction in her work. The research is desirable when it is reported to the public in terms that the public can understand. There is a vocabulary for reading center personnel, another for parents. One author is rarely able to communicate effectively with these publics. Doesn't that mean we want on our staffs people who can communicate with each of these groups?

Undesirable, it seems to me, is the present practice of writing up proposals which are aimed at pleasing some Midas who may open his purse strings for us. This puts us in the position of beggars. It places us under obligation. Wouldn't it be more desirable to be free from the threat of having support removed? Do you know of any area in which more "gucky" research has gone on than in the field of reading?

You undoubtedly have heard stories of how research studies had to be conducted so the results would be in harmony with commercial or pressure group interests. Certain books may not be used; certain must be used. This won't sell; the public won't buy that! So what happens to principles like freedom of inquiry, freedom of the press, freedom of speech and free enterprise?

In the area of research, there is much focus on gimmicks and methods. The crying need is for a much more difficult, but a much more important area — the area of humans. About people and their reading, about the inter-relationships among people, experiences, thinking, feeling, behaving, language and the arts, about human growth and development, about values and uses of literature, about society — those are areas desirable for research.

Probably the most desirable direction for reading centers is the development and training of personnel. That places a very great responsibility on us, for the people we train reflect that which we are. If we are overly aggressive, unethical and disagreeable, our personnel may be the kind of which one of our teachers said, "I like all of my work except

that with the people in reading." Wouldn't it be desirable then for us to do some serious soul-searching?

1. Are we manipulating people? — exploiting people? — for our selfish ends?
2. Are we ethically professional in service, in teaching and in research?
3. Are we the kind of people other people like to be with?
4. Do we laugh, thus expressing that which one philosopher calls "the language of the soul"?
5. Do we remember to keep our practices in harmony with such principles as the freedoms?
6. Do we enjoy living?
7. Do we read for enjoyment? Do we read to learn? Do we share our enthusiasms with those near us?

Of course, we all miss fire on certain days with certain people. We are human and, being human, we will make mistakes. Then, if we are sensible, we will learn. We will not repeat our mistakes; well, at least not many more times.

In summary, maybe we should reflect on the charge that is ours. The responsibility of training people how to draw upon the bank of the world's wisdom; how to use the withdrawals ethically, morally and with satisfaction; how to use the wisdom of the ages to build a secure world; a world where peoples' basic needs are met; a world in which people are happy to be alive.

MOTIVATION: KEY STEPS IN DEVELOPING LIFETIME READERS

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Teachers of reading, like other educators, are engaged in the daily task of attempting to influence what others do. The "springs of action" which finally initiate the person's behavior are triggered, not by some external force, but by internal needs, emotions, and organic states of the individual which lead him to goal-seeking behavior. According to Maslow[1], these determinants or springs to goal-seeking behavior are the physiological needs for food, drink, and rest, and the psychological needs for safety, love, esteem, self-actualization, and the need to know.

This fact that a person's behavior is at least in part determined by his own individual psychic and physical nature indicates that motivation is not something that can be turned on at will like a faucet or induced to come out of hiding for every bait that the seller of panaceas has to offer. Indeed, the activity an individual selects to satisfy his needs depends less on the stimulus itself than it does upon what sort of person he is and the state or condition he is in. Thus an individual will not necessarily react the same way a second time to a stimulus but will react each time according to the need that is then demanding satisfaction.

The problem as it relates to the educator is how to select and have available the right combination of methods, materials, and climate that will lead the individual to choose reading as an important avenue of need satisfaction and goal attainment and that will entrap the desultory student into an avid, lifetime habit of reading.

First of all, the counselor or teacher must himself be convinced that reading is an important factor in his own life. The student is very likely to view this teacher as a model or identifying figure and may think somewhat in this manner: "If I do as he does, I will be likely to satisfy my own goals." Even the most successful of adults pattern their behavior in part after the actions of others. Fifty dollar western hats are now selling briskly in Washington, and Beatle wigs are popping up on every corner, as cases in point. Not only should personal reading mark the activities of the teacher, but his conversation should indicate it. How many times has your own reading been stimulated by the reported reading that others have done?

If reading desire is a part of the very personality of the learner, then it must be at once obvious that the unvarying, unimaginative program, built perhaps around a "package deal" cannot possibly keep up for long with the quintessence of the seeking, searching, curiosity-filled human intellect. It is true that almost any type of program will temporarily seem to improve reading, particularly at the college or adult level, even though the materials used may be invalid in terms of what we know about how reading takes place or in terms of learning theory in general. This, I think, only proves the strength of human needs as motivators in learning. The program, whatever its sophistication, at least lets the student or reader know that someone is interested in him and is trying to help him.

What happens, then, when programs built on surrogates for real motivation, the gimmicks and gadgets of the reading specialist's trade, are no more available to the student: What motivates him then? Wouldn't it be better if we quit trying to kid ourselves and realize that this key step in developing lifetime readers is the acceptance of the fact that the student really wants to know, that he is curious, and that he has built-in needs that he can learn to satisfy through honest materials that we can help him discover? Books and materials dealing with the prime motivators of love and affection, belonging, approval, independence, adequacy, prestige, the love of adventure, curiosity, and the thrill of discovery are all tied in to the reader's search to satisfy the developmental tasks of growing up, of meeting the expectancies of his society, and explaining the mysteries of his own maturation and development. Insightful guidance will not only accept these as the true source of motivation but will realize the varieties of change in incentives that are selected as the continuum of life modifies and redirects the manner in which satisfaction of need comes about. Many studies and summaries of research are available, including those from **The Reading Teacher, Journal of Educational Research**, and the Traxler and Townsend[2] summaries, which will familiarize the teacher with reading versus age, sex, motivation patterns of the average person.

But, of course, the average person never really exists. While there is, probably, a central core of interests which may match in part the motivations of a particular instructional group, the individual represents a unique core of interests specific to him alone. Getzels[3] describes this core as a "style of life" which determines in large measure what a person will see and what he will do gladly and under duress. Reading selected must operate as either a source of information to this style of life so the individual may better meet life's developmental tasks, or it must act as a vicarious substitution for the real world which he cannot fully know or sense otherwise. Bernstein,[4] in a study using equivalent materials in readability with teen-agers, found that content emphasizing teen-age problems and doings was read much more quickly with greater comprehension than materials dealing with impersonal situations. Further, the lower the reading ability, the greater the interest needed in the subject.

How does one learn what another is like enough to make available to him the kind of experiences that are meaningful and real? Sadly enough for education, the log with the tutor sitting on one end and the tutored on the other has gone out of fashion. Yet this is still, I suspect, the best way there is to learn about a student. And perhaps we can still find enough time in a day for that person who is in our class for whom this knowing will do the most good.

Then, of course, there are the questionnaires, interviews, and observations that can be made. One problem with these is that they are too often never used after the data have been collected.

The next question that arises after we have learned, by some means, about our student is what methods and materials can best be used to create a motivated reader? A first problem that stands in the way of many potential readers is the fact that they have never mastered either all of the basic skills or the advanced developmental skills that are necessary to wide, continuous reading. These problems are best corrected directly through careful, analytic diagnosis and specific teaching. Even here, however, work need not be dull and purposeless, consisting of such remarkable tasks as "work through the next ten pages and copy down all the main idea lines or topic sentences," or "see if you can read this at ten thousand words a minute." Indeed, genuine purposes may be found for even the most mundane learning, and the developmental skills of vocabulary building, purposeful searching with the skills of skimming and scanning, and the art of creative reading can actually be exciting to the student. Over-verbalization and lecture can indeed fill the student with words, words, words and leave him with little more know-how than when he came. At least 75 or 80 per cent of time spent in skill-building should be given to the actual process of doing it, not hearing about how to do it. The more varied the illustrative materials and the more concrete and sensual and the less abstract they can be made, the better. By sensual I mean the coming to grips with the task itself, touching, feeling, and visualizing it through

our own creation. For example, we talk about the Survey Q3R Method, the PQRST, and other like techniques. But how much time do we actually give in guiding our students in the practice of these techniques? Studies have indicated that while students can verbalize very nicely about some of these study methods, very few of them actually use them because they have never actually tried to do so.

Perhaps the greatest step that we can finally take toward developing lifetime readers is to become ourselves truly creative teachers. If we teach reading only that we may have returned to us canned ideas, warmed-over thoughts, and secondhand points of view, then we are fashioning students who are little different from a garbage can – it takes all you give it, keeps its lid shut, and doesn't put out until the garbage collector, its final examination, comes along to collect its contents. But the reader's mind and heart are capable of being fashioned into the most lively of creative instruments, fabricating from the raw materials of books the newer products of his own inventiveness and creativity. All of life works after this fashion – growth and change are assumed as products of assimilation. The results of reading should also be a continuous process, not a state of being. Producing the habit of creative set, rather than a memory set or, as an end result, a critical set, should be the aim of every reading instructor. Especially should this be true at the college and graduate level where all but the last bit of originality and love of thinking has been beaten out of the student who has dared to try it.

But the whole concept of creativity is that it is a way of behavior, not a static state of being. Creativity must be a part of the whole reading process, helping to set purpose for a reading selection, continuing the process of goal-seeking during the reading, and acting as an integrating and inventive force after the reading is completed. It helps not only to answer the question of "how can this help me," but it pushes the concept even further by asking the question, "how can I take what I have learned to help somebody else?"

Again, as in the other areas I have mentioned, there is much in the literature dealing with the creative process in reading. A fairly recent survey of the literature on this topic appears in the 1962 proceedings of the National Reading Conference.[5]

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PROGRESS REPORT: THE CHANDLER LANGUAGE EXPERIENCE READERS

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During this last year many publishers have offered new departures in basal or individualized readers. American Book Company has published a series of small, paperbound stories at elementary grade levels designed for individualized reading, with Dr. Manolakes as major author. The **Linguistic-Science Readers,** published by Harper and Row (Stratemeyer and Smith), has first grade materials with vocabulary control set by agreement of letter and sound. The **Basic Reading Series,** with McCracken and Walcutt as authors and published by Lippincott, emphasizes phonics and the use of filmstrips. The first year program has been published. The **Early to Read i/t/a Program,** utilizing Sir, James Pitman's initial teaching alphabet now has a first year program by Mazurkiewicz and Tanyzer.

These series illustrate the ferment in which the teaching of reading finds itself. The individualized method is being attempted in some schools but materials are a problem; therefore, some are now being published to fill the need. Linguistics in reading is receiving emphasis and so linguists are now authors of readers. McCracken and Walcutt have been critical of present-day basal readers and now they combine their approaches in a series. John Downing's experiments in a new and more phonic alphabet for the writing of English have wide publicity, and now American materials are printed in this alphabet. Each of these series is being gradually developed starting with first grade materials; all await further evaluation in the classrooms of this country.

Two other series are being published which are designed for particular use with a somewhat different population. The first of these is the **City Schools Reading Program,** written by the Writer's Committee of the Great Cities School Improvement Program of the Detroit Public Schools. Three preprimers have been in use during this past school year. They have complete teacher's guides, and introduce new vocabulary very slowly and with much repetition. Illustrations are color drawing, depicting mixed racial groups. This series includes no readiness materials, but higher- level books are being developed.

The second of these more special series is the one for which I was asked to present this progress report: **The Chandler Language-Experience Series.** It difters from all the others in some respects, which I will attempt to clarify. First, the theory behind this series.

Point of View

The large metropolitan areas of the United States have an urgent educational problem: that of educating children of widely differing ethnic groups. Children from different cultural backgrounds have different ed-

ucational needs though they are not greatly different in native capacity. Instructional materials must be adapted to these different needs, since failure in the beginning stages often launches a pattern of failure which continues into adulthood. It is not necessary to cite the drop-out, the delinquent, and the unemployable here, except to emphasize that these are often results of lack of reading success. Acquisition of reading skill is essential for adjustment to our society; whatever can be done to help all children learn to read more easily and more ably is a real step in the direction of the American way of life.

Children from lower socio-economic areas speak in shorter, more incomplete, and simpler sentences than middle-class children of the same age. They also commit more grammatical errors and use somewhat different words in their speech patterns. Basic word lists do not really fit lower socio-economic groups. Regular basal readers are written with these word lists and utilize middle-class sentence patterns. One need is, therefore, a new series of readers which takes these language differences into account.

The acquisition of meaning is the major objective in all stages of reading. Meaning can only be a realizable objective in beginning stages of reading if the experiences presented in the books have a true reality base for each child. Obviously, a white suburban middle-class preprimer is not the way to start a child who comes from a totally different environment. The situations are strange, the words therefore hold no meaning, and the entire process of reading becomes impossible. We must start where the child is; progress from a point not yet reached is impossible. Development is a series of relatively slow steps proceeding from the present step to a higher and more complex level. Skipped steps mean a loss in developmental reading learnings plus negative learnings of frustration and defeat. We can ill afford such negative learnings in urban multiracial groups.

To summarize, then, the need is for a series designed for urban multiracial children; this series must use language which is meaningful to these children; the situations presented must be real to such children; and the series must be developmentally designed so that it provides success and motivation at each step

To Achieve This Goal

We are attempting to realize our objectives through the following procedures:

1. The vocabulary in the beginning books is composed of the words of groups of multiracial children. Our authors have tape-recorded the words of children as they played and worked. The vocabulary has been somewhat modified by the necessity for control of the vocabulary load to be introduced, but we have preserved, as far as possible, the children's words and manner of speaking. To be more specific, we took a group of children of mixed racial composition to see or do some-

thing, and then we took down or recorded what they said. We then arranged their words and sentences to tell the story with a gradual increase in complexity.

2. The experiences presented in the first books must be available and familiar to all urban children, no matter what the socio-economic or racial background. So the preprimers are written about swings, slides, riding toys, bikes and a supermarket.
3. The illustrations of these books are actual pictures of the children who spoke the words which are printed in the books, doing the things they were doing when they spoke these words. The pictures are in black and white. In terms of fidelity, color printing presents some severe problems when multiracial groups are used.
4. The books are carefully and accurately done in the best black and white typography. The reason for this is simple—more books for the same price. Schools have many demands for their dollars. Children should have many, not few, books. First grade children appreciate finishing one book and starting a new one. This is especially important where children may have no books at home.
5. The series may be used as either basic, supplemental, or remedial. The teacher's guide is sufficiently complete so the books may be used as basic readers. The experiences shown are sufficiently common so that they may be used as supplementary reading with all groups of children; many teachers are already commenting that the books provide a needed experience for white suburban middle-class children. Used as remedial materials, the reality base makes it possible to use a preprimer with a much older child, without the "baby book" reaction.
6. Our writing team is racially mixed. Writers are teachers and supervisors in urban schools working with multiracial groups. The head author has a reading clinic which enrolls children from various racial and socio-economic backgrounds. We hope our combination of people gives a somewhat broader perspective than is usual.
7. Since there are many innovations, the books must be thoroughly tried out before actual publication. We have, therefore, enlisted the aid of many educators and children in the following cities: Philadelphia, Washington, Pittsburgh, Cleveland, Milwaukee (across the country) and San Francisco, Richmond, Berkeley, and Salinas (in California). The total number of experimental copies being used is 2000: 1400 with children and 600 more distributed for comments from professional educators at all levels.

A few of the innovations which are being investigated are: early use of contractions; actual photographs in black and white instead of drawings in color; additional books at certain levels; inclusion of children from multiracial backgrounds; the controlled language-experience approach; introduction of ten basic words in the readiness book; informal readiness activities outlined for the teacher before the readiness book which the

children use; a big book which is not merely a large repetition of the first preprimer, but is a picture book designed to contribute to readiness skills; the introduction of a few non-maintained words of high interest and supported by strong picture clues such as hippopotamus and elephant in the primer and above; and the use of manuscript type face.

Evaluation to Date

The readiness book and the six preprimers, with accompanying manuals, are now being tried out across the country. The picture book and the primer should be on its way to the schools before the end of March. All of these are in experimental editions, including the manuals, and will be revised before this fall, so that at least the readiness material and the preprimers will be available for purchase in September, 1964. In succeeding months the first reader will be developed, evaluated, and revised before it is published. We plan to have, eventually, at least two second and two third grade readers, but these are still in the future. The first reader is being written, even now.

The experimental editions are being sent to schools free of charge, with the request for comments and criticisms from teachers, principals, supervisors, and children. We wish to eliminate localisms and make certain that the experiences which are contained are shared by urban children in all parts of the country. We hope to make the guides as practical and direct as possible. We want the pictures to represent children sympathetically and realistically. We have attempted to provide for a complete evaluation in use which will direct our further efforts.

By April, we hope to have returns on the materials now being tried, with the returns on the primer to follow before the end of the school year. Comments from children which we have received to date emphasize the reality of the pictures and the speech patterns. Teacher's comments emphasize the need for materials of this sort, and "try-out" teachers have been invited to contribute work sheets and other materials.

Conclusion

We are attempting something which has several very sound psychological bases not previously used in teaching today's children to read and to be motivated to read. If we succeed we will have a program which should save many children lost by existing reading programs and should lose none of those children achieving satisfactory reading skills with existing materials.

Success would also have profound implications for the rest of the elementary curriculm – implications we hope to begin to explore.